IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

JEFF SCHMIDT, Plaintiff, v. AMERICAN INSTITUTE OF PHYSICS, Defendants.	Case No. 04-CV-3774 Judge Alexander Williams

DR. JEFF SCHMIDT'S CONFIDENTIAL MEDIATION STATEMENT

SUBMITTED TO:

HAROLD HIMMELMAN

Respectfully Submitted,

Patricia G. Butler
Erik T. Koons
Chad Murchison
HOWREY, LLP
1299 Pennsylvania Avenue, NW
Washington, D.C. 20004
(202) 783-0800
(202) 383-6610 (fax)

Warren K. Kaplan
Robert M. Bruskin
THE WASHINGTON LAWYERS' COMMITTEE
FOR CIVIL RIGHTS AND URBAN AFFAIRS
11 Dupont Circle, NW
Suite 400
Washington, D.C. 20036
(202) 319-1000
(202) 319-1010 (fax)

COUNSEL FOR PLAINTIFF DR. JEFF SCHMIDT

***** CONFIDENTIAL AND SUBJECT TO FED. R. EVID. 408 *****

Volume II

2

From $1500. to $23,500.
form A

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Assoc. Editor Supervisor H. Davis

Date Employed 3-17-81 Date Effective 3-16-82 annual Date Due FEB 24 82

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good. He has learned to be an effective editor.

2. QUALITY OF WORK (Accuracy & thoroughness): Excellent. He is extremely thorough and precise in his work; checks and double checks the output. He has a good eye for detail.

3. QUANTITY OF WORK (Volume): Good.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good. Now that he has learned the basics, he adds to that knowledge easily.

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Very good. He has an excellent sense of responsibility and works overtime to finish his work.

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Very good.

7. JUDGMENT (Accuracy of decisions, practicability): Very Good

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very Good

9. ATTENDANCE (Punctuality & attendance): Excellent !

D00170

10. POTENTIAL (Is employee promotable, in what area?) Yes

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely careful and thorough in his work. He pays great attention (and very usefully so) to production of his articles.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He still works very slowly — so much so that one is reluctant to add work beyond the minimum one can expect.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT	
GOOD (Very Good) ←	X
SATISFACTORY	
NEEDS IMPROVEMENT	
UNSATISFACTORY	

REMARKS

He has learned a lot in the past year and I think his performance will continue to improve as he hones his skills and as he acquires the confidence required to be a good editor.

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY Thomas von Foerster DATE 19 February 1982

REPORT REVIEWED BY [signature] DATE Feb 22 1982

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

FOR PERSONNEL USE ONLY:

D00171

AMERICAN INSTITUTE OF PHYSICS
Payroll Authorization Form

TO: PERSONNEL DATE: 2/10/82

RE: Jeffery Schmidt (Employee's Name) DIVISION: Physics Today

☐ Employment ☒ Salary Change ☐ Title Change

☐ Termination ☐ Transfer ☐ Miscellaneous

EMPLOYMENT

Effective Date: _____ Address: _____

Salary: _____ Telephone: _____

Position Title: _____ APPROVALS:

Social Security #: _____ _____

Birth Date: _____ Authorized Signature

Marital Status: _____ _____

Fiscal Grant Administrator

Payroll Account Charged _____

_____

Personnel

TERMINATION

Effective Date: _____

Additional Pay: _____ APPROVAL:

Vacation Pay: _____ _____

Other: _____ Personnel

SALARY CHANGE

Physics Today | Assoc. Editor | 25(17,040-21,300-25,560)
Division | Position Title | Grade

$21,500 yr. | 23,500 | 2000 | 3-16-82(next review 3/83)
Previous Salary | New Salary | Amount of Increase | Effective Date

_____
Recommending Party | Authorized Approval | Personnel

TRANSFER (Division or Charges)

From _____ To _____ Effective Date _____

_____ _____ _____
Division Head | Division Head | Fiscal Grant Admin. or Personnel

---

TITLE CHANGE

From _____ To _____ Effective Date _____

_____ _____
Division Head | Personnel

MISCELLANEOUS

☐ Change of Address ☐ Change of Marital Status

REMARKS:

D00172

P 26 Rev. 3/77

AMERICAN INSTITUTE OF PHYSICS
Payroll Authorization Form

TO: PERSONNEL DATE: February 4, 1983

RE: Jeffrey Schmidt (Employee's Name) DIVISION: Physics Today

☐ Employment ☒ Salary Change ☐ Title Change

☐ Termination ☐ Transfer ☐ Miscellaneous

EMPLOYMENT

Effective Date: _____ Address: _____

Salary: _____ Telephone: _____

Position Title: _____ APPROVALS:

Social Security #: _____ _____

Birth Date: _____ Authorized Signature

Marital Status: _____ _____

Fiscal Grant Administrator

Payroll Account Charged _____ _____

Personnel

TERMINATION

Effective Date: _____

Additional Pay: _____ APPROVAL:

Vacation Pay: _____ _____

Other: _____ Personnel

SALARY CHANGE

Division	Position Title	Grade		
Physics Today	Assoc. Editor	25 (17,040-21,300-25,560)		
Previous Salary	New Salary	Amount of Increase	next review	Effective Date
$23,500/yr.	26,500/yr	3000/yr	3/16/83	3/16/84

H D Harris _____ _____

Recommending Party Authorized Approval Personnel

TRANSFER (Division or Charges)

From _____ To _____ Effective Date _____

Division Head Division Head Fiscal Grant Admin. or Personnel

TITLE CHANGE

From _____ To _____ Effective Date _____

Division Head Personnel

MISCELLANEOUS ☐ Change of Address ☐ Change of Marital Status

REMARKS:

D00167

P 26 Rev. 3/77

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffery Schmidt Division Physics Today

Employee's Job Title Assoc. Editor Supervisor H. Davis

Date Employed 3-17-81 Date Effective 3-16-83 Date Due 2-14-83
annual

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good

2. QUALITY OF WORK (Accuracy & thoroughness): Excellent: He is extremely thorough and precise in his work; he is one of the most careful checkers and proofreaders here. He has a good eye for detail.

3. QUANTITY OF WORK (Volume): Good.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good. Now that he has learned how to edit articles, he is also beginning to work at acquiring them, and is learning to be a journalist for Search & Discovery.

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Excellent

7. JUDGMENT (Accuracy of decisions, practicability): Very good.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very good

9. ATTENDANCE (Punctuality & attendance): Excellent

10. POTENTIAL (Is employee promotable, in what area?) Yes

D00168

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely careful and thorough in his work.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He still works quite slowly and winds up spending a lot of overtime; one is therefore still reluctant to add to his work with Search stories etc.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

VERY	EXCELLENT	
	GOOD	X
	SATISFACTORY	
	NEEDS IMPROVEMENT	
	UNSATISFACTORY	

REMARKS

His performance has continued to improve, and he is beginning, I suspect, to acquire the confidence and chutzpah required to be a good editor.

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY Thomas von Foerster DATE 14 February 1983

REPORT REVIEWED BY [signature] DATE 14 Febru 1983

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

FOR PERSONNEL USE ONLY:

D00169

AMERICAN INSTITUTE OF PHYSICS
Payroll Authorization Form

TO: PERSONNEL

DATE: January 23, 1984

RE: Jeffrey Schmidt (Employee's Name)

DIVISION: Physics Today

☐ Employment ☒ Salary Change ☐ Title Change

☐ Termination ☐ Transfer ☐ Miscellaneous

EMPLOYMENT

Effective Date: _____

Salary: _____

Position Title: _____

Social Security #: _____

Birth Date: _____

Marital Status: _____

Payroll Account Charged _____

Address: _____

Telephone: _____

APPROVALS:

_____
Authorized Signature

_____
Fiscal Grant Administrator

_____
Personnel

TERMINATION

Effective Date: _____

Additional Pay: _____

Vacation Pay: _____

Other: _____

APPROVAL:

_____
Personnel

SALARY CHANGE

Division	Position Title	Grade
Physics Today	Assoc. Editor	25 (17,040;21,300;25,560)

Previous Salary	New Salary	Amount of Increase	Effective Date	next review
$26,500/yr.	$28,800	$2,300	3/16/84	3/16/85

Recommending Party: K Rem

Authorized Approval: I Slade

Personnel

TRANSFER (Division or Charges)

From _____ To _____ Effective Date _____

Division Head _____ Division Head _____ Fiscal Grant Admin. or Personn

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TITLE CHANGE

From _____ To _____ Effective Date _____

Division Head _____ Personnel

MISCELLANEOUS

☐ Change of Address ☐ Change of Marital Status

REMARKS:

D00164

P 26 Rev. 3/77

form A

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Assoc. Editor Supervisor H. Davis

Date Employed 3/17/81 Date Effective 3/16/84 Date Due FEB 15 1984

ANNUAL

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good

2. QUALITY OF WORK (Accuracy & thoroughness): Generally excellent: He is extremely thorough and precise in his work; he is one of the most careful and meticulous proofreaders here and he has a good eye for detail.

3. QUANTITY OF WORK (Volume): Good: he works at a steady pace and can be counted on to meet deadlines.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good.

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Very good.

7. JUDGMENT (Accuracy of decisions, practicability): Very good.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very good

9. ATTENDANCE (Punctuality & attendance): Excellent

D00165

10. POTENTIAL (Is employee promotable, in what area?) Yes

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely careful and thorough in his work.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? While he can be counted on to meet deadlines, he still works quite slowly. He also keeps to himself very much and could be more open.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT	
VERY GOOD	X
SATISFACTORY	
NEEDS IMPROVEMENT	
UNSATISFACTORY	

REMARKS

--Jeffrey has been doing a large fraction of the solicitation of the articles he winds up editing. Without his efforts we would not be able to put four articles into an issue

--Jeffrey's willingness to stay late and work very hard has provided us with what little backlog we have for feature articles.

--He has been very useful on the computer study group

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY Thomas Von Fourth DATE 24 FEBRUARY 1984

REPORT REVIEWED BY [signature] DATE 5 March 1984

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

D00166

FOR PERSONNEL USE ONLY:

28,200 ½ to 31,175 ½.
form A
(165)

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Assoc. Editor Supervisor G. Lubkin

Date Employed 3/17/81 Date Effective 3/16/85 Date Due 2/15/85

ANNUAL

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good

2. QUALITY OF WORK (Accuracy & thoroughness): ~~Generally excellent. He is thorough~~ and careful and has a good eye for detail. He checks everything meticulously.

3. QUANTITY OF WORK (Volume): Very good. We have had several issues with three articles edited by him.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent. He can be counted on to meet deadlines.

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Very good. He is always helpful and cooperative. However, he is not very outgoing and does not always share his own ideas and insights unless asked.

7. JUDGMENT (Accuracy of decisions, practicability): Very good.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very good.

9. ATTENDANCE (Punctuality & attendance): Excellent.

D00010

10. POTENTIAL (Is employee promotable, in what area?) Yes

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely thorough and careful in checking all parts of the articles he edits.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He has started to solicit feature articles, but he should become more effective at it.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT	
GOOD VERY GOOD	X
SATISFACTORY	
NEEDS IMPROVEMENT	
UNSATISFACTORY	

REMARKS

Jeffrey should be generating more ideas and authors for feature articles and also for news stories. He should try to communicate these ideas to Tom, Gloria and the rest of the staff, in story conferences and in day-to-day activity (Gloria Lubkin)

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? Yes, essentially- Gloria Lubkin

REPORT PREPARED BY Thomas McFarland DATE 21 February 1985

REPORT REVIEWED BY Gloria Lubkin DATE 2/22/85

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

D00011

FOR PERSONNEL USE ONLY:

form A

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Assoc. Editor Supervisor G. Lubkin

Date Employed 3/17/81 Date Effective 3/16/85 Date Due 2/15/85

ANNUAL

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good

2. QUALITY OF WORK (Accuracy & thoroughness): ~~Generally excellent. He is thorough~~ and careful and has a good eye for detail. He checks everything meticulously.

3. QUANTITY OF WORK (Volume): Very good. We have had several issues with three articles edited by him.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent. He can be counted on to meet deadlines.

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Very good. He is always helpful and cooperative. However, he is not very outgoing and does not always share his own ideas and insights unless asked.

7. JUDGMENT (Accuracy of decisions, practicability): Very good.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very good.

9. ATTENDANCE (Punctuality & attendance): Excellent.

D00160

10. POTENTIAL (Is employee promotable, in what area?) Yes.

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely thorough and careful in checking all parts of the articles he edits.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He has started to solicit feature articles, but he should become more effective at it.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT	
GOOD VERY GOOD	X
SATISFACTORY	
NEEDS IMPROVEMENT	
UNSATISFACTORY	

REMARKS

Jeffrey should be generating more ideas and authors for feature articles and also for news stories. He should try to communicate these ideas to Tom, Gloria and the rest of the staff, in story conferences and in day-to-day activity (Gloria Kubkin)

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL?

REPORT PREPARED BY Thomas von Foerster DATE 21 February 1985

REPORT REVIEWED BY Gloria Kubkin DATE 2/22/85

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

FOR PERSONNEL USE ONLY:

D00161

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form B - Personnel Committee Action Only

TO: PAYROLL DATE: February 1, 1985

RE: Jeffrey Schmidt (Employee's Name) DIVISION: Physics Today

Payroll Account: Physics Today

[XXX] Salary Change [ ] Title Change [ ] Transfer

SALARY CHANGE

Position Title	Grade	Range	Effective Date	next review
Assoc. Editor	25	17,040-21,300-25,560	3/16/85	3/16/86

Previous Salary	New Salary	Amount of Increase	Percentage
$28,800 yr.	31,000	2200	7.6

Gloria Lubkin

Recommending Party Authorized Approval Personnel

TITLE CHANGE

From_____ To_____ Effective Date_____

New Grade New Range

Division Head Personnel

TRANSFER (Division or Charges)

From_____ To_____ Effective Date_____

Division Head Division Head Personnel

Rev. 5/84

D00162

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form B - Personnel Committee Action Only

TO: PAYROLL DATE: 2/18/86

RE: Jeffrey Schmidt (Employee's Name) DIVISION: Physics Today

Payroll Account: Physics Today

[xx] Salary Change [ ] Title Change [ ] Transfer

SALARY CHANGE

QUARTILE 2 $27,060-34,000-40,940

Position Title	Grade	Range	Effective Date
~~Assoc. Editor for Articles~~	~~30~~ 33	~~$22,840-28,550-43,260~~	3/16/86 N.R. 3/16/87

Previous Salary	Amount of Increase	New Salary	Percentage
$31,000 yr.	$2,200	$33,200	7%

RATIA 3+

Recommending Party Authorized Approval Personnel

TITLE CHANGE

From To Effective Date

New Grade New Range

Division Head Personnel

TRANSFER (Division or Charges)

From To Effective Date

Division Head Division Head Personnel

Rev. 5/84

D00159

from 31. std/1 & 33,200 4c
form A (7-76)

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Assoc. Editor ~~for Articles~~ Supervisor Gloria Lubkin

Date Employed 3/17/81 Date Effective 3/16/86 Date Due ASAP

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good

2. QUALITY OF WORK (Accuracy & thoroughness): Generally excellent. He is thorough and careful, and he has a good eye for detail. He checks everything meticulously.

3. QUANTITY OF WORK (Volume): Very good, although he works slowly.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent. He can be counted on to complete a job when he has agreed to.

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Very good He should, however, be more open and volunteer to share information and ideas that he has.

7. JUDGMENT (Accuracy of decisions, practicability): Very good.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very good.

9. ATTENDANCE (Punctuality & attendance): Excellent.

10. POTENTIAL (Is employee promotable, in what area?) Yes

D00155

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely thorough and careful in editing and checking.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He should be able to work faster: He should not have to work so late to edit two articles a month and solicit a few.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT		
GOOD	VERY GOOD	X
SATISFACTORY		
NEEDS IMPROVEMENT		
UNSATISFACTORY		

REMARKS

Jeffrey has become a sensitive editor and careful stylist; his ear for English has improved considerably overe the years. He has also become more active in article solicitation and contributing to story conferences.

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY Thomas von Foerster DATE 26 February 1986

REPORT REVIEWED BY Gloria Kuliokin DATE 26 Feb. 1986

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

J. Schmitt 12 MAR 86

D00156

FOR PERSONNEL USE ONLY:

from 31,000 to 33,200 9/86
form A (7/85)

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Assoc. Editor ~~for Articles~~ Supervisor Gloria Lubkin

Date Employed 3/17/81 Date Effective 3/16/86 Date Due ASAP

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good

2. QUALITY OF WORK (Accuracy & thoroughness): Generally excellent. He is thorough and careful, and he has a good eye for detail. He checks everything meticulously.

3. QUANTITY OF WORK (Volume): Very good, although he works slowly.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent. He can be counted on to complete a job when he has agreed to.

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Very good He should, however, be more open and volunteer to share information and ideas that he has.

7. JUDGMENT (Accuracy of decisions, practicability): Very good.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very good.

9. ATTENDANCE (Punctuality & attendance): Excellent.

D00012

10. POTENTIAL (Is employee promotable, in what area?) ~~Yes~~

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely thorough and careful in editing and checking.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He should be able to work faster: He should not have to work so late to edit two articles a month and solicit a few.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT		
GOOD	VERY GOOD	X
SATISFACTORY		
NEEDS IMPROVEMENT		
UNSATISFACTORY		

REMARKS

Jeffrey has become a sensitive editor and careful stylist; his ear for English has improved considerably overe the years. He has also become more active in article solicitation and contributing to story conferences.

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY Thomas von Foerster DATE 26 February 1986

REPORT REVIEWED BY Gloria Kulukundis DATE 26 Feb. 1986

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

J. Schmitt 12 MAR 86

FOR PERSONNEL USE ONLY:

D00013

FROM $33,200 YR TO $35,200 YR (6%)

form A

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Associate Editor Supervisor G. Lubkin

Date Employed 3/17/81 Date Effective 3/16/87 Date Due 2/19/87

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good

2. QUALITY OF WORK (Accuracy & thoroughness): Generally excellent. He is meticulous in his editing and handles difficult articles well.

3. QUANTITY OF WORK (Volume): Very good although he works slowly.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent. He can be counted on to complete a job when he has agreed to.

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Generally good but he should be more open about sharing his ideas and he should be less rigid about what tasks he is willing to take on.

7. JUDGMENT (Accuracy of decisions, practicability): Very good.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Very good.

9. ATTENDANCE (Punctuality & attendance): Excellent

D00014

10. POTENTIAL (Is employee promotable, in what area?) Yes

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? He is extremely thorough and careful in editing and checking.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He should be able to work faster, and he should take more initiative in soliciting articles.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT	_____	3+
GOOD	_____	
SATISFACTORY	_____	
NEEDS IMPROVEMENT	_____	
UNSATISFACTORY		

REMARKS

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY Thomas van Soest DATE 18 Feb 87

REPORT REVIEWED BY Gloria Lubkin DATE 2/18/87

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

J. Schmidt 3 MARCH 1987

FOR PERSONNEL USE ONLY:

D00015

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form B - Personnel Committee Action Only

TO: PAYROLL DATE: 1/14/88

RE: Jeffrey Schmidt (Employee's Name) DIVISION: Physics Today

Payroll Account: Physics Today

[XX] Salary Change [ ] Title Change [ ] Transfer

SALARY CHANGE 02

Position Title	Grade	Range	Effective Date	Next Review
Associate Editor Level I	22	$29,510-37,130-44,750	3/16/88	3/16/89

Previous Salary	Amount of Increase	New Salary	Percentage
$35,200 yr.	$2500	$37,700	7%

Gloria B. Lubkin

Recommending Party Authorized Approval Personnel

TITLE CHANGE

From_____ To_____ Effective Date_____

New Grade New Range

Division Head Personnel

TRANSFER (Division or Charges)

From_____ To_____ Effective Date_____

Division Head Division Head Personnel

Rev. 5/84

D00130

form A

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Associate Editor Supervisor Gloria Lubkin

Date Employed 3/17/81 Date Effective 3/16/88 Date Due 2/19/88

Please comment on the following categories:

1. KNOWLEDGE OF WORK (Understanding this & related jobs): Very good.

2. QUALITY OF WORK (Accuracy & thoroughness): Very good. Authors often praise Jeff's editing. He is thorough and produces well-edited articles.

3. QUANTITY OF WORK (Volume): Jeff is still very slow, editing two articles/month. Occasionally he should edit a third.

4. ABILITY TO LEARN NEW SKILLS (How rapidly and how thoroughly learned, ability to carry over from task to task): Very good.

5. DEPENDABILITY (Reliability under varying circumstances, compliance with instructions & regulations): Excellent. He can be counted on to finish a job once he agrees to do it.

6. COOPERATIVENESS (Cooperation with associates, supervisors & others): Generally good but he has, for example, refused to edit "new Products" and not helped Bert Ulrich when he could to edit

7. JUDGMENT (Accuracy of decisions, practicability): Jeff does well at anticipating problems with the articles and authors.

8. CHARACTER & ATTITUDE (Initiative, enthusiasm): Excellent initiative editing assigned articles. Little initiative soliciting articles and identifying topics for stories and articles.

9. ATTENDANCE (Punctuality & attendance): Fine attendance. However Jeff comes to work late & works late. He should keep us informed of his presence and absence.

10. POTENTIAL (Is employee promotable, in what area?)

D00017

Please answer the following questions fully:

1. WHAT DOES THIS EMPLOYEE DO ESPECIALLY WELL? Jeff is an outstanding editor of articles and can be relied on to edit two articles each month in an expert manner.

2. IN WHAT RESPECTS CAN THIS EMPLOYEE IMPROVE? He should increase his productivity, editing more than two articles per month. He should show more initiative in generating articles for the magazine.

3. DESCRIBE ALL AROUND JOB PERFORMANCE

EXCELLENT	
GOOD	34
SATISFACTORY	
NEEDS IMPROVEMENT	
UNSATISFACTORY	

REMARKS

Jeff should strive to be more flexible when asked to do new kinds of tasks.

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY Gloria Lubkin DATE 2/19/88

REPORT REVIEWED BY _____ DATE _____

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

J. Smith

FOR PERSONNEL USE ONLY:

D00018

AMERICAN INSTITUTE OF PHYSICS
Employee Performance Appraisal

Employee's Name JEFFREY SCHMIDT Division PHYSICS TODAY

Employee's Job Title ASSOCIATE EDITOR Evaluator GLORIA LUBKIN

Date Employed 3/17/81 Date Effective 3/16/88 Date Due 2/19/88

Period Appraised: From: 2/20/87 To: 2/19/88

Objective of Appraisal

The objective of the performance appraisal is to:
A) give feedback to the employee as to how well he/she is performing;
B) provide an incentive to improve through recognition; and
C) offer an objective basis for determining the amount of periodic wage increases.

INSTRUCTIONS

To the Evaluator

1. Evaluate the employee's work performance without regard to race, color, religion, sex, age, national origin, or handicap.
2. Review performance for the entire review period; do not base your judgment on recent events or isolated incidents only.
3. Consider one factor at a time; judge each factor independently.
4. Make your appraisal in terms of actual performance and on the basis of facts and records so that it can be discussed with and explained to the employee. Utmost care and thought should be given to your answers because they govern the individual's success with the Institute.
5. Prepare the appraisal so that in later discussions with the employee you can help him or her to understand: how well he or she is doing in the position; where his or her strengths lie, and how they can be used to the best advantage for the individual and the Institute; what weaknesses exist, and how they can be corrected through training or counseling.
6. Avoid the tendency to overrate the employee's performance as exceptional when he or she actually performs above standard. Remember that the fully qualified employee is expected to perform at least satisfactorily.
7. Appraise performance and not personality. If a factor is concerned with the employee's personality, it should be only as it relates to the person's ability to do the assigned work.
8. If performance in any rating factor is below standard or inadequate, tasks or goals must be specified to improve performance.
9. Space has been reserved at the end of this appraisal for overall comments by the evaluator concerning employee's strengths, weaknesses, accomplishments, potential, etc. This section must be completed by the evaluator.

To the Employee

Please read the appraisal thoroughly and discuss the contents of the appraisal with your immediate supervisor. You are encouraged to write your comments in the space provided on page 4 prior to signing the appraisal. Please remember that the objective of the appraisal is to provide you with a better understanding of how your supervisor sees your on-the-job performance in relation to the standards set for the position.

Your signature at the end of this appraisal does not mean that you agree with everything that is stated on the form, only that you have read the completed form.

D00133

EXPLANATION OF EMPLOYEE RATING FACTORS

1. QUALITY OF WORK
How good is the output produced? Consider service provided, complaints received, mistakes made, etc.

2. QUANTITY OF WORK
How much of a product or service does the employee produce? Consider volume of output, turnaround time, etc.

---

3. (a) ATTENDANCE
How dependable is employee? When possible, does employee properly report absences (sick/vacation) in advance? Is attendance record excellent?

3. (b) PUNCTUALITY
Does employee arrive at work on time? Does employee adhere to policy regarding breaks and lunch periods?

4. INITIATIVE
Consider the amount of supervision needed by employee, willingness to volunteer for assignments, willingness to undertake self-development activities, ability to make correct decisions in the absence of the supervisor, etc. To what extent does employee originate useful ideas, make feasible suggestions for improved methods, and seek expanded assignment?

5. RELATIONSHIP WITH CO-WORKERS
How well does employee get along with others? Consider employee's relationships with co-workers and supervisor, quality of interactions with the public, etc. Does he/she demonstrate willingness to assist co-workers and superiors, both in own and other areas?

6. USE OF WORK TIME
Does employee make efficient use of working time? Does employee organize work effectively, eliminate wasted effort, etc.

7. ADAPTABILITY
Consider flexibility in accepting new procedures, conditions, priorities, etc. Does employee work well under pressure?

8. JUDGMENT
How well does employee make correct decisions, organize their workload, and anticipate potential problems? Consider employee's ability to distinguish the important from the unimportant, choose worthwhile courses of action, and understands priorities.

EMPLOYEE PERFORMANCE SHEET

RATING FACTORS — RATINGS

1. QUALITY OF WORK – The extent to which the employee actually completes job assignments.

6	12	18	24	30
Almost always makes errors, has very low accuracy	Quite often makes errors	Makes errors but equals job standards	Makes few errors, has high accuracy	Almost never makes errors, has very high accuracy

Comments/Goals: Authors often praise Jeff's editing. He is thorough and produces excellent articles. — **27**

2. QUANTITY OF WORK – The extent to which the employee produces a volume of work consistent with established standards for the job.

6	12	18	24	30
Almost never meets standards	Quite often does not meet standards	Volume of work is satisfactory, equals job standards	Quite often produces more than required	Almost always exceeds standards, exceptionally productive

Comments/Goals: Jeff is still very slow. Occasionally he should edit more than two articles/month. — **18**

3. (a) ATTENDANCE – The extent to which the employee adheres to work schedule.

1	2	3	4	5
Excessively absent	Frequently absent	Occasionally absent	Infrequently absent	Almost never absent

Comments/Goals: — **5**

3. (b) PUNCTUALITY – The extent to which the employee adheres to work schedule.

1	2	3	4	5
Excessively late	Frequently late	Occasionally late	Infrequently late	Almost never late

Comments/Goals: Jeff comes to work late & stays late. He should keep his supervisor informed of his presence or absence. — **2**

4. INITIATIVE – The extent to which the employee exercises self-reliance, planning, ingenuity.

2	4	6	8	10
Requires constant supervision	Frequently requires supervision	Requires average supervision	Works independently with limited supervision	Consistent self-starter, needs minimal supervision

Comments/Goals: Excellent initiative editing articles. Little initiative soliciting articles & suggesting stories — **9**

5. RELATIONSHIP WITH CO-WORKERS – The extent to which the employee establishes and maintains good relations with co-workers.

2	4	6	8	10
Does not get along well with co-workers. Definitely hinders effectiveness	Has difficulty in getting along with co-workers	Gets along with co-workers adequately average skill in human relations	Above average skills in human relations	Excellent skills in human relations,

Comments/Goals: — **6**

6. USE OF WORK TIME – The extent to which the employee uses time to effectively and efficiently accomplish job tasks.

2	4	6	8	10
Quite often wastes time	Too frequently wastes time	Makes adequate use of time	Utilizes time wisely	Exceptionally effective in use of time

Comments/Goals: Jeff takes too long in editing an article. — **6**

7. ADAPTABILITY – The extent to which the employee is flexibile, learns new skills, and functions under pressure.

2	4	6	8	10
Inadequate	Partially meets standards	Meets standards	Exceeds standards	Outstanding

Comments/Goals: Jeff should strive to be more flexible when asked to do new kinds of tasks. — **6**

8. JUDGMENT – The extent to which the employee questions inconsistencies, understands priorities, anticipates and/or solves problems.

2	4	6	8	10
Inadequate	Partially meets standards	Meets standards	Exceeds standards	Outstanding

Comments/Goals: Jeff does well at anticipating problems with the articles & the authors. — **8**

TOTAL OF PERFORMANCE RATINGS — **87**

OVERALL EVALUATION

D00131

This employee's work:

☐ Does not meet standards (24–42)	☐ Partially meets standards (43–67)	☒ Meets standards (68–90)	☐ Exceeds standards (91–105)	☐ Consistently exceeds standards (106–120)

EVALUATOR'S COMMENTS (Must be filled out)

Jeff is an outstanding editor of articles & can be relied on to edit two articles each month in an expert manner.

EVALUATOR'S SIGNATURE _____ DATE _____

REVIEWED BY _____ DATE _____

EMPLOYEE'S RESPONSE

EMPLOYEE'S SIGNATURE _____ DATE _____

DISCUSSED WITH EMPLOYEE BY _____ DATE _____

DIVISION MANAGER _____ DATE _____

BRANCH DIRECTOR/OFFICER _____ DATE _____

FOR PERSONNEL USE ONLY

Comments:

D00132

Reviewed by _____ DATE _____

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form B - Personnel Committee Action Only

TO: PAYROLL DATE: 1/20/89

RE: Jeffrey Schmidt (Employee's Name) DIVISION: Phys. Tod.

Payroll Account: _____

[XX] Salary Change [ ] Title Change [ ] Transfer

SALARY CHANGE 30

Position Title	Grade	Range	Effective Date	Next Review
Assoc. Ed. I	22	29,510-37,130-44,750	3/1/89	3/1/90

Previous Salary	Amount of Increase	New Salary	Percentage
$37,700 yr.	$3000	$40,700	8%

Gloria B. Lubkin

Recommending Party Authorized Approval Personnel

TITLE CHANGE

From _____ To _____ Effective Date _____

New Grade New Range

Division Head Personnel

TRANSFER (Division or Charges)

From _____ To _____ Effective Date _____

Division Head Division Head Personnel

Rev. 5/84

D00125

Jeff Schmidt: Performance Review

1. Planning: Very good. Jeff is excellent at planning the work for his upcoming article assignments, and he is very clear (and accurate!) about what he can and cannot deliver. Furthermore, he has helped a great deal with the negotiation needed to bring articles to an editable stage. He works best on one project at a time; this has the advantage that Jeff can give all of his considerable concentration to a single project, but it has the disadvantage that occasionally a relatively small job must wait in a relatively long queue before it gets done.

2. Executing: Outstanding. Jeff is the mainstay as an articles editor at *Physics Today*. His thoroughness, his direct and persistent negotiation with authors and his management of his time are all models to which others can aspire. This is not to say that every one of Jeff's suggestions is exactly as ~~others~~ would want it. When he says an article is ready, however, he means that insofar as he is concerned, the text, ~~the art~~, the captions, the credit lines, everything is in a publishable state. This is as it should be.

My hope is that he will ~~begin~~ to take a somewhat more active role in the editing and acquisition of the illustrations for his articles. ~~I would also hope he would~~ continue to deal regularly with the manuscripts he is asked to report on.

3. Delegating: He is quite willing to delegate work to those he thinks he can trust implicitly. For example, he has entrusted the completion of two articles in the past few months to Pat Janowski of our staff, and I believe she has indeed finished them off without further intervention from Jeff. He is less willing to delegate corrections and typing--in short, routine matters, to the secretarial staff, on the (perhaps justifiable) grounds that correcting the mistakes they introduced would be more time consuming than completing the work himself.

4. Adaptability: Jeff has the ability to adapt his editorial input to the available time, and he manages that time effectively. He is also, by now, our most experienced hand with articles, and he seems able to edit virtually all kinds of ~~articles~~. His working routines, however, are by now well ingrained; although he is willing to follow whatever procedure is set forth, he is also quite clear about his own working preference.

5. Dependability: Excellent. His is a schedule shifted about two to three hours later than the ordinary working day, and he generally works late into the night. As noted above, he is thorough, and he takes charge of the work assigned.

6. Initiative: Excellent, so long as he is clear the work will be needed for a soon-to-appear issue of the magazine. He is

sometimes sluggish, however, to make recommendations about the disposition of pending manuscripts. I think a better system for handling the manuscripts and making it clear when a reply is needed would enable him to give more timely responses to these matters.

7. Relationships: Good to fair. Jeff is generally quiet, but he is unafraid of confrontation, and he is persistent about asserting his point of view. This posture has been effective with article authors. It can be somewhat abrasive with other staff members, although his stated positions on various issues (e.g., smoking in the office, noise in the office) seem reasonable and open to compromise. ~~He is not "popular" in the crude sense,~~ but I think his colleagues respect him, and his demeanor is thoroughly professional.

8. Attendance: Excellent

9. Potential: Very good. I think Jeff can adapt to virtually any editorial direction, and he is ~~well-qualified to oversee~~ the preparation of articles by other editors. He is most valuable to us as an article editor, and he seems happy with that role; I would be quite cautious--as I think he would too--about offering assignments that would preclude his taking a continuing active role in article editing.

General Comments: Overall, 4

Gloria B. Lubkin

Peter G. Brown

February 13, 1989

0-0

Jeff Schmidt: Performance Review

1. Planning: Very good. Jeff is excellent at planning the work for his upcoming article assignments, and he is very clear (and accurate!) about what he can and cannot deliver. Furthermore, he has helped a great deal with the negotiation needed to bring articles to an editable stage. He works best on one project at a time; this has the advantage that Jeff can give all of his considerable concentration to a single project, but it has the disadvantage that occasionally a relatively small job must wait in a relatively long queue before it gets done.

2. Executing: Outstanding. Jeff is the mainstay as an articles editor at Physics Today. When he says an article is ready, he means that insofar as he is concerned everything--text, art, captions, credit lines--is in a publishable state. This thoroughness, his direct and persistent negotiation with authors and his management of his time are all models to which others can aspire.

   My hope is that he will begin to take a somewhat more active role in soliciting new manuscripts for publication, and in the editing and acquisition of the illustrations for his articles. I would also hope he would respond more quickly and more regularly to the disposition of the manuscripts he is asked to report on. I think a better system for handling the manuscripts and making it clear when a reply is needed would enable him to give more timely responses to these matters.

3. Delegating: He is quite willing to delegate work to those he thinks he can trust implicitly. For example, he has entrusted the completion of two articles in the past few months to Pat Janowski of our staff, and I believe she has indeed finished them off without further intervention from Jeff.

   He is less willing to delegate corrections and typing--in short, routine matters, to the secretarial staff, on the (perhaps justifiable) grounds that correcting the mistakes they introduced would be more time consuming than completing the work himself. Accordingly, he often asks Elliot Plotkin to enter galley or page-proof corrections. My impression is that Elliot is generally agreeable about this, but Jeff must not assume that it is Elliot's responsibility to have the corrections entered (e.g., by someone else) if Elliot does not have the time to do it. In general, if Elliot cannot enter such corrections, Jeff should seek help from the managing editor.

4. Adaptability: Jeff has the ability to adapt his editorial input to the available time, and he manages that time effectively. He is also, by now, our most experienced hand with articles, and he seems able to edit virtually all kinds of articles. His working routines and editorial judgments, however, are by now well ingrained and occasionally seem inflexible: although he is willing to follow whatever procedures and to debate whatever editorial

guidelines are set forth, there are occasions when he also seems somewhat more concerned with establishing rules and precedent than with finding ways to adapt to the goals at hand.

5. Dependability: Excellent. His is a schedule shifted about two to three hours later than the ordinary working day, and he generally works late into the night. As noted above, he is thorough, and he takes charge of the work assigned.

6. Initiative: Excellent, so long as he is clear the work will be needed for a soon-to-appear issue of the magazine. He is sometimes sluggish, however, to make recommendations about the disposition of pending manuscripts, and, again, he could be more forthcoming about suggesting new articles for publication.

7. Relationships: Good to fair. Jeff is generally quiet, but he is unafraid of confrontation, and he is persistent about asserting his point of view. This posture has been effective with article authors. It can be somewhat abrasive with other staff members, although his stated positions on various issues (e.g., smoking in the office, noise in the office) seem reasonable and open to compromise.

8. Attendance: Excellent

9. Potential: Very good. I think Jeff can adapt to virtually any editorial direction, and he is well-qualified to train other editors in the preparation of articles. He is most valuable to us as an article editor, and he seems happy with that role; I would be quite cautious--as I think he would too--about offering assignments that would preclude his taking a continuing active role in article editing.

General Comments: Overall, 4.

Report prepared by Peter G. Brown

Gloria B. Lubkin

Reviewed by Gloria B. Lubkin

February 13, 1989

copy w/ JS changes

Jeff Schmidt: Performance Review

1. Planning: Very good. Jeff is excellent at planning the work for his upcoming article assignments, and he is very clear (and accurate!) about what he can and cannot deliver. Furthermore, he has helped a great deal with the negotiation needed to bring articles to an editable stage. He works best on one project at a time; this has the advantage that Jeff can give all of his considerable concentration to a single project, but it has the disadvantage that occasionally a relatively small job must wait in a relatively long queue before it gets done.

2. Executing: Outstanding. Jeff is the mainstay as an articles editor at Physics Today. When he says an article is ready, he means that insofar as he is concerned everything--text, art, captions, credit lines--is in a publishable state. This thoroughness, his direct and persistent negotiation with authors and his management of his time are all models to which others can aspire.

   My hope is that he will begin to take a somewhat more active role in soliciting new manuscripts for publication, and in the editing and acquisition of the illustrations for his articles. I would also hope he would act more quickly and more regularly in dealing with the review and refereeing of the manuscripts he is asked to supervise. I think a better system for handling the manuscripts and making it clear when a reply is needed would enable him to give more timely responses to these matters.

3. Delegating: He is quite willing to delegate work to those he thinks he can trust implicitly. For example, he has entrusted the completion of two articles in the past few months to Pat Janowski of our staff, and I believe she has indeed finished them off without further intervention from Jeff.

   He is less willing to delegate corrections and typing--in short, routine matters, to the secretarial staff, on the (perhaps justifiable) grounds that correcting the mistakes they introduced would be more time consuming than completing the work himself. Accordingly, he often asks Elliot Plotkin to enter galley or page-proof corrections. My impression is that Elliot is generally agreeable about this, but if he cannot, it is Jeff's responsibility to have the corrections entered (perhaps himself, perhaps by someone else). In general, if Elliot cannot enter such corrections, Jeff should seek help from the managing editor.

4. Adaptability: Jeff has the ability to adapt his editorial input to the available time, and he manages that time effectively. He is also, by now, our most experienced hand with articles, and he seems able to edit virtually all kinds of articles. His working routines and editorial judgments, however, are by now well ingrained and occasionally seem inflexible: although he is willing to follow whatever procedures and to debate whatever editorial guidelines are set forth, there are occasions when he also seems

somewhat more concerned about clarifying rules and precedent than with finding ways to adapt to the goals at hand.

5. Dependability: Excellent. He commonly arrives a bit late, but he also generally works late into the night. As noted above, he is thorough, and he takes charge of the work assigned.

6. Initiative: Excellent, so long as he is clear the work will be needed for a soon-to-appear issue of the magazine. He has also taken the initiative (with William Sweet) for editing a special issue on science literacy to appear in December 1989. Nevertheless, he could be more forthcoming about suggesting new articles for publication in ordinary (non-single-topic) issues.

7. Relationships: Good to fair. Jeff is generally quiet, but he is unafraid of confrontation, and he is persistent about asserting his point of view.

8. Attendance: Excellent

9. Potential: Very good. I think Jeff can adapt to virtually any editorial direction, and he is well-qualified to train other editors in the preparation of articles. He is most valuable to us as an article editor, and he seems happy with that role; I would be quite cautious--as I think he would too--about offering assignments that would preclude his taking a continuing active role in article editing.

General Comments: Overall, 4.

Report prepared by Peter G. Brown

Reviewed by Gloria B. Lubkin

February 13, 1989

Jeff Schmidt: Performance Review

See new file H:Schmidt rev 10 Mar 89

1. Planning: Very good. Jeff is excellent at planning the work for his upcoming article assignments, and he is very clear (and accurate!) about what he can and cannot deliver. Furthermore, he has helped a great deal with the negotiation needed to bring articles to an editable stage. He works best on one project at a time; this has the advantage that Jeff can give all of his considerable concentration to a single project, but it has the disadvantage that occasionally a relatively small job must wait in a relatively long queue before it gets done.

2. Executing: Outstanding. Jeff is the mainstay as an articles editor at Physics Today. When he says an article is ready, he means that insofar as he is concerned everything--text, art, captions, credit lines--is in a publishable state. This thoroughness, his direct and persistent negotiation with authors and his management of his time are all models to which others can aspire.

   My hope is that he will begin to take a somewhat more active role in soliciting new manuscripts for publication, and in the editing and acquisition of the illustrations for his articles. I would also hope he would respond more quickly and more regularly to the disposition of the manuscripts he is asked to report on. I think a better system for handling the manuscripts and making it clear when a reply is needed would enable him to give more timely responses to these matters.

3. Delegating: He is quite willing to delegate work to those he thinks he can trust implicitly. For example, he has entrusted the completion of two articles in the past few months to Pat Janowski of our staff, and I believe she has indeed finished them off without further intervention from Jeff.

   He is less willing to delegate corrections and typing--in short, routine matters, to the secretarial staff, on the (perhaps justifiable) grounds that correcting the mistakes they introduced would be more time consuming than completing the work himself. Accordingly, he often asks Elliot Plotkin to enter galley or page-proof corrections. My impression is that Elliot is generally agreeable about this, but Jeff must not assume that it is Elliot's responsibility to have the corrections entered (e.g., by someone else) if Elliot does not have the time to do it. In general, if Elliot cannot enter such corrections, Jeff should seek help from the managing editor.

4. Adaptability: Jeff has the ability to adapt his editorial input to the available time, and he manages that time effectively. He is also, by now, our most experienced hand with articles, and he seems able to edit virtually all kinds of articles. His working routines and editorial judgments, however, are by now well ingrained and occasionally seem inflexible: although he is willing to follow whatever procedures and to debate whatever editorial

guidelines are set forth, there are occasions when he also seems somewhat more concerned with establishing rules and precedent than with finding ways to adapt to the goals at hand.

5. Dependability: Excellent. His is a schedule shifted about two to three hours later than the ordinary working day, and he generally works late into the night. As noted above, he is thorough, and he takes charge of the work assigned.

6. Initiative: Excellent, so long as he is clear the work will be needed for a soon-to-appear issue of the magazine. He is sometimes sluggish, however, to make recommendations about the disposition of pending manuscripts, and, again, he could be more forthcoming about suggesting new articles for publication.

7. Relationships: Good to fair. Jeff is generally quiet, but he is unafraid of confrontation, and he is persistent about asserting his point of view. This posture has been effective with article authors. It can be somewhat abrasive with other staff members, although his stated positions on various issues (e.g., smoking in the office, noise in the office) seem reasonable and open to compromise.

8. Attendance: Excellent

9. Potential: Very good. I think Jeff can adapt to virtually any editorial direction, and he is well-qualified to train other editors in the preparation of articles. He is most valuable to us as an article editor, and he seems happy with that role; I would be quite cautious--as I think he would too--about offering assignments that would preclude his taking a continuing active role in article editing.

General Comments: Overall, 4.

Report prepared by Peter G. Brown

Gloria B. Lubkin

Reviewed by Gloria B. Lubkin

February 13, 1989

Jeff Schmidt: Performance Review

1. Planning: Very good. Jeff is excellent at planning the work for his upcoming article assignments, and he is very clear (and accurate!) about what he can and cannot deliver. Furthermore, he has helped a great deal with the negotiation needed to bring articles to an editable stage. He works best on one project at a time; this has the advantage that Jeff can give all of his considerable concentration to a single project, but it has the disadvantage that occasionally a relatively small job must wait in a relatively long queue before it gets done.

2. Executing: Outstanding. Jeff is the mainstay as an articles editor at Physics Today. When he says an article is ready, he means that insofar as he is concerned everything--text, art, captions, credit lines--is in a publishable state. This thoroughness, his direct and persistent negotiation with authors and his management of his time are all models to which others can aspire.

   My hope is that he will begin to take a somewhat more active role in soliciting new manuscripts for publication, and in the editing and acquisition of the illustrations for his articles. I would also hope he would respond more quickly and more regularly to the disposition of the manuscripts he is asked to report on. I think a better system for handling the manuscripts and making it clear when a reply is needed would enable him to give more timely responses to these matters.

3. Delegating: He is quite willing to delegate work to those he thinks he can trust implicitly. For example, he has entrusted the completion of two articles in the past few months to Pat Janowski of our staff, and I believe she has indeed finished them off without further intervention from Jeff.

   He is less willing to delegate corrections and typing--in short, routine matters, to the secretarial staff, on the (perhaps justifiable) grounds that correcting the mistakes they introduced would be more time consuming than completing the work himself. Accordingly, he often asks Elliot Plotkin to enter galley or page-proof corrections. My impression is that Elliot is generally agreeable about this, but Jeff must not assume that it is Elliot's responsibility to have the corrections entered (e.g., by someone else) if Elliot does not have the time to do it. In general, if Elliot cannot enter such corrections, Jeff should seek help from the managing editor.

4. Adaptability: Jeff has the ability to adapt his editorial input to the available time, and he manages that time effectively. He is also, by now, our most experienced hand with articles, and he seems able to edit virtually all kinds of articles. His working routines and editorial judgments, however, are by now well ingrained and occasionally seem inflexible: although he is willing to follow whatever procedures and to debate whatever editorial

guidelines are set forth, there are occasions when he also seems somewhat more concerned with establishing rules and precedent than with finding ways to adapt to the goals at hand.

5. Dependability: Excellent. His is a schedule shifted about two to three hours later than the ordinary working day, and he generally works late into the night. As noted above, he is thorough, and he takes charge of the work assigned.

6. Initiative: Excellent, so long as he is clear the work will be needed for a soon-to-appear issue of the magazine. He is sometimes sluggish, however, to make recommendations about the disposition of pending manuscripts, and, again, he could be more forthcoming about suggesting new articles for publication.

7. Relationships: Good to fair. Jeff is generally quiet, but he is unafraid of confrontation, and he is persistent about asserting his point of view. This posture has been effective with article authors. It can be somewhat abrasive with other staff members, although his stated positions on various issues (e.g., smoking in the office, noise in the office) seem reasonable and open to compromise.

8. Attendance: Excellent

9. Potential: Very good. I think Jeff can adapt to virtually any editorial direction, and he is well-qualified to train other editors in the preparation of articles. He is most valuable to us as an article editor, and he seems happy with that role; I would be quite cautious--as I think he would too--about offering assignments that would preclude his taking a continuing active role in article editing.

General Comments: Overall, 4

Peter G. Brown

Report prepared by Peter G. Brown

Gloria B. Lubkin

Reviewed by Gloria B. Lubkin

February 13, 1989

form B

AMERICAN INSTITUTE OF PHYSICS

Employee Performance Review

Employee's Name Jeffrey Schmidt Division Physics Today

Employee's Job Title Assoc. Ed. Supervisor G. Lubkin

Date Employed 3/17/81 Date Effective 3/1/89 Date Due
Annual

Please comment on the following categories:

1. PLANNING (Practical solution to problems, long versus short range):

2. EXECUTING (Ability to get ideas accepted by superiors & subordinates):

3. DELEGATING (Allowing others to do work, assigning work properly):

4. ADAPTABILITY (Flexibility, ability to accept changes, work under pressure):

5. DEPENDABILITY (Meeting deadlines, follow-up on detail):

6. INITIATIVE (Enthusiasm, interest in work):

7. RELATIONSHIPS (With superiors, coworkers, and subordinates):

8. ATTENDANCE (Punctuality & attendance):

D00128

9. POTENTIAL (Promotability, expansion of responsibility):

COMMENTS:

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL? _____

REPORT PREPARED BY _____ DATE _____

REPORT REVIEWED BY _____ DATE _____

REPORT DISCUSSED WITH EMPLOYEE BY _____ DATE _____

FOR PERSONNEL USE ONLY:

D00129

Jeff Schmidt: Performance Review

1. Planning: Very good. Jeff is excellent at planning the work for his upcoming article assignments, and he is very clear (and accurate!) about what he can and cannot deliver. Furthermore, he has helped a great deal with the negotiation needed to bring articles to an editable stage. He works best on one project at a time; this has the advantage that Jeff can give all of his considerable concentration to a single project, but it has the disadvantage that occasionally a relatively small job must wait in a relatively long queue before it gets done.

2. Executing: Outstanding. Jeff is the mainstay as an articles editor at Physics Today. When he says an article is ready, he means that insofar as he is concerned everything--text, art, captions, credit lines--is in a publishable state. This thoroughness, his direct and persistent negotiation with authors and his management of his time are all models to which others can aspire.

   My hope is that he will begin to take a somewhat more active role in soliciting new manuscripts for publication, and in the editing and acquisition of the illustrations for his articles. I would also hope he would act more quickly and more regularly in dealing with the review and refereeing of the manuscripts he is asked to supervise. I think a better system for handling the manuscripts and making it clear when a reply is needed would enable him to give more timely responses to these matters.

3. Delegating: He is quite willing to delegate work to those he thinks he can trust implicitly. For example, he has entrusted the completion of two articles in the past few months to Pat Janowski of our staff, and I believe she has indeed finished them off without further intervention from Jeff.

   He is less willing to delegate corrections and typing--in short, routine matters, to the secretarial staff, on the (perhaps justifiable) grounds that correcting the mistakes they introduced would be more time consuming than completing the work himself. Accordingly, he often asks Elliot Plotkin to enter galley or page-proof corrections. My impression is that Elliot is generally agreeable about this, but if he cannot, it is Jeff's responsibility to have the corrections entered (perhaps himself, perhaps by someone else). In general, if Elliot cannot enter such corrections, Jeff should seek help from the managing editor.

4. Adaptability: Jeff has the ability to adapt his editorial input to the available time, and he manages that time effectively. He is also, by now, our most experienced hand with articles, and he seems able to edit virtually all kinds of articles. His working routines and editorial judgments, however, are by now well ingrained and occasionally seem inflexible: although he is willing to follow whatever procedures and to debate whatever editorial guidelines are set forth, there are occasions when he also seems

somewhat more concerned about clarifying rules and precedent than with finding ways to adapt to the goals at hand.

5. Dependability: Excellent. He commonly arrives a bit late, but he also generally works late into the night. As noted above, he is thorough, and he takes charge of the work assigned.

6. Initiative: Excellent, so long as he is clear the work will be needed for a soon-to-appear issue of the magazine. He has also taken the initiative (with William Sweet) for editing a special issue on science literacy to appear in December 1989. Nevertheless, he could be more forthcoming about suggesting new articles for publication in ordinary (non-single-topic) issues.

7. Relationships: Good to fair. Jeff is generally quiet, but he is unafraid of confrontation, and he is persistent about asserting his point of view.

8. Attendance: Excellent

9. Potential: Very good. I think Jeff can adapt to virtually any editorial direction, and he is well-qualified to train other editors in the preparation of articles. He is most valuable to us as an article editor, and he seems happy with that role; I would be quite cautious--as I think he would too--about offering assignments that would preclude his taking a continuing active role in article editing.

General Comments: Overall, 4.

Report prepared by Peter G. Brown

Reviewed by Gloria B. Lubkin

February 13, 1989

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 01/19/90

EMPLOYEE: **JEFFREY SCHMIDT** DIVISION: PHYS TODAY
EMP NO.: 1437
OLD PAYROLL ACCOUNT: MANAG EDITOR NEW PAYROLL ACCT:

Salary Change: YES **Title Change:** **Transfer:**

REMARKS: EXEMPT

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
ASSOC EDIT LEV I	EY05	$31100-$39500-$47900	03/01/90	03/01/91

Previous Salary	Amount of Increase	New Salary	Percent Increase
42300.0000	2120	44,420	5 %

Quartile: 3 Overall Rating: 3+

Gloria B. Lubkin
Recommending Party _____ Authorized Approval _____ Personnel

TITLE CHANGE INFORMATION

From: ASSOC EDIT LEV I To: Effective:

New Grade: New Range:

_____ _____
Division Head Personnel

TRANSFER (Division or Charges) **INFORMATION**

From: PHYS TODAY MANAG EDITOR To:

Effective Date:

_____ _____ _____
Division Head Division Head Personnel

MISCELLANEOUS REMARKS:
EXEMPT

Rev. 01/90

D00116

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form B - Personnel Committee Action Only

TO: PAYROLL DATE: 1/12/90

RE: Jeffrey Schmidt (Employee's Name) DIVISION: Phys. Tod.

Payroll Account: _____

[XX] Salary Change [X] ~~Title~~ Grade Change [ ] Transfer

Equity Adjustment Exempt

SALARY CHANGE

Assoc. Ed. I 9/1/89

Position Title Grade Range Effective Date

$40,700 $1,600 $42,300

Previous Salary Amount of Increase New Salary Percentage

Quartile Overall Rating

Gloria Ludkin Jean Beyer

Recommending Party Authorized Approval Personnel

~~TITLE~~ Grade CHANGE

From _____ To _____ Effective Date 9/1/89

5 31,100-39,500-47,900

New Grade New Range

Gloria Ludkin Jean Beyer

Division Head Personnel

TRANSFER (Division or Charges)

From _____ To _____ Effective Date _____

Division Head Division Head Personnel

D00117

Rev. 3/89

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 01/19/90

EMPLOYEE: **JEFFREY SCHMIDT** DIVISION: PHYS TODAY
EMP NO.: 1437
OLD PAYROLL ACCOUNT: MANAG EDITOR NEW PAYROLL ACCT:

Salary Change: YES **Title Change:** **Transfer:**

REMARKS: EXEMPT

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
ASSOC EDIT LEV I	EY05	$31100-$39500-$47900	03/01/90	03/01/91

Previous Salary	Amount of Increase	New Salary	Percent Increase
42300.0000			

Quartile: 3 Overall Rating:

Recommending Party _____ Authorized Approval _____ Personnel _____

TITLE CHANGE INFORMATION

From: ASSOC EDIT LEV I To: Effective:

New Grade: New Range:

Division Head _____ Personnel _____

TRANSFER (Division or Charges) **INFORMATION**

From: PHYS TODAY MANAG EDITOR To:

Effective Date:

Division Head _____ Division Head _____ Personnel _____

MISCELLANEOUS REMARKS:
EXEMPT

Rev. 01/90

S 001291

AMERICAN INSTITUTE OF PHYSICS

EMPLOYEE PERFORMANCE REVIEW

Employee: **JEFFREY D SCHMIDT** Division: PHYSICS TODAY

Job Title: ASSOC EDIT LEV I Supervisor: GLORIA LUBKIN

Date Employed: 03/17/81 Date Effective: 03/01/90 Date Due:

Please comment on the following categories:

PLANNING (Practical solution to problems, long versus short range):
Seems to do good job at short-term planning.
Not sure about long-term responsibilities.

EXECUTING (Ability to get ideas accepted by superiors and subordinates):
Has good reasoning power which he uses to persuade others in accepting his point of view

DELEGATING (Allowing others to do work, assigning work properly):
Has no trouble assigning, correcting entries to others, but is reluctant to give up other aspects of his duties

ADAPTABILITY (Flexibility, ability to accept changes, work under pressure):
Tries to accommodate, but won't be pressured to change work habits in large steps

DEPENDABILITY (Meeting deadlines, follow-up on detail):
Superior on detail. Does better than most others on staff in meeting deadlines. Goes out of way to get job done

INITIATIVE (Enthusiasm, interest in work):
Highly motivated to do superior work

RELATIONSHIPS (With superiors, coworkers, and subordinates):
Can't speak for others at this time. My relationship with him is excellent

ATTENDANCE (Punctuality and attendance):
Self has his own hours and I can easily abide with them

POTENTIAL (Promotability, expansion of responsibility):
Can't say for certain at this time.

S 001292

Employee Review (Form B) Page 2

COMMENTS:

Jeff is the managing ~~editor~~ article editor. He is ~~reliable~~ and dedicated and, from my limited observations, works well with authors and ~~other~~ staffers. He and Jesse ~~may~~ may want to curtail their conferences ~~as the~~ following the copy-editing phase of a manuscript's progress.

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL?

Report prepared by Paul Hersch Date: 15 Feb 90

Report reviewed by _____ Date: _____

Report discussed with employee by _____ Date: _____

(For Personnel Use Only)

Rev. 10/89

S 001293

AMERICAN INSTITUTE OF PHYSICS

INTER-OFFICE MEMORANDUM

Date: 24 April 1990

TO: Jeffrey Schmidt

FROM: Human Resouces

SUBJECT: Personnel Committee Action

On 24 April 1990 the Personnel Committee approved your annual rate of pay to be changed from $42,300 (third quartile) to $44,420 (fourth quartile) effective 1 March 1990. Your next review is scheduled for 1 March 1991.

AMERICAN INSTITUTE OF PHYSICS

INTER-OFFICE MEMORANDUM

Date: 5 January 1990

TO: All AIP Employees

FROM: T. C. Braun TCB

SUBJECT: Salary Matrix

Attached for your information is a copy of the Salary Matrix for all employees effective 1 January 1990.

1990 SALARY MATRIX
(Effective 1/1/90)

OVERALL PERFORMANCE RATING	FIRST QUARTILE	SECOND QUARTILE	THIRD QUARTILE	FOURTH QUARTILE
CONSISTENTLY EXCEEDS STANDARDS (106-120)	9% to 12%	8% to 11%	7% to 10%	6% to 9%
EXCEEDS STANDARDS (91-105)	7% to 9%	6% to 8%	5% to 7%	4% to 6%
MEETS STANDARDS (68-90)	5% to 7%	4% to 6%	3% to 5%	2% to 4%
PARTIALLY MEETS STANDARDS (43-67)	2% to 4%	2% to 3%	2%	0% Deferred Review
DOES NOT MEET STANDARDS (24-42)	0% Deferred Review (3 Mos)	0% Deferred Review (3 Mos)	0% Deferred Review or Termination	0% Deferred Review or Termination

ALL PROMOTIONS MUST BE REVIEWED BY THE DIRECTOR, HUMAN RESOURCES

Promotion - for longevity (little or no change in responsibility) - 2%

Promotion to new position with increased responsibility - 3% to 5%

Promotions that involve major changes in responsibility will be dealt with on an individual basis.

12/1/89

S 001296

AMERICAN INSTITUTE OF PHYSICS

EMPLOYEE PERFORMANCE REVIEW

Employee: JEFFREY D SCHMIDT Division: PHYS TODAY

Job Title: ASSOC EDIT LEV I Supervisor: GLORIA LUBKIN

Date Employed: 03/17/81 Date Effective: 03/01/91 Date Due:

Please comment on the following categories: Please see the attached pages following page 2 of this form

PLANNING (Practical solution to problems, long versus short range):

EXECUTING (Ability to get ideas accepted by superiors and subordinates):

DELEGATING (Allowing others to do work, assigning work properly):

ADAPTABILITY (Flexibility, ability to accept changes, work under pressure):

DEPENDABILITY (Meeting deadlines, follow-up on detail):

INITIATIVE (Enthusiasm, interest in work):

RELATIONSHIPS (With superiors, coworkers, and subordinates):

ATTENDANCE (Punctuality and attendance):

POTENTIAL (Promotability, expansion of responsibility):

S 001297

COMMENTS:

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL?

Report prepared by Paul Ibrosch Date: 08 Feb 91

Report reviewed by Gloria Lubkin Date: 2/13/91

Report discussed with employee by _____ Date: _____

READ 20 FEB. 91 J. Schmitt

(For Personnel Use Only)

S 001298

PERFORMANCE REVIEW FOR JEFF SCHMIDT--by Paul Hersch

Planning. Jeff has improved his ordering of priorities and now reviews letters, articles and other materials submitted for his review in a more timely manner. As always, Jeff does a fine job of editing articles, in part because he methodically plans the various article-editing phases. Although he works best when concentrating on a single article, through better planning he is now interspersing preparatory work for other articles into his article-editing schedule.

Executing. Jeff is thorough and accurate at performing his assignments. However, Jeff often presents his ideas in ways (tone, nuance, persistence) that may aggravate some people. Also, Jeff at times has gotten overinvolved with trying to improve an article (as with the intro for the November 1990 issue), with diminishing returns on his investment of time.

Delegating. Where possible, Jeff delegates drudge work and does it in a way that usually gains the respect and cooperation of the delegatees.

Adaptability. If Jeff is asked to do something to which he takes exception, he will usually express his objections and sometimes repeat them. However, having concluded these representations, he does as asked and does it without recrimination.

Dependability. Jeff is the most dependable staff member with regard to meeting article completion commitment dates. He can also be counted on to carry out in timely fashion and with satifactory results any preliminary article work (such as getting referees.) He is less dependable (although his performance has improved) on his turnaround time in reviewing articles.

Initiative. Jeff likes doing the work he does, and he takes pride in doing a good job. He has shown initiative by learning to use the communication capabilities of the computer, which has benefited PT. On the other hand, Jeff has been mostly passive in providing article ideas.

Relationships. Jeff generally is well liked by and gets along very well with most of his coworkers and me. He is particularly appreciated by Matt Siegel and Ellen Zeeman because he has been extremely cooperative in teaching them the "tricks" of the article-editing trade. Jeff, unfortunately, tics off some AIP people by the way he may present and pursue his ideas.

Attendance. Except for his vacation time, Jeff invariably is in the office. Although he doesn't keep conventional AIP hours, he puts in considerably more time than standards require.

Potential. Under suitable conditions, Jeff could be an even more productive staff member.

Comments. Jeff is looked upon as PT's articles editor since, for many years, he has been responsible for producing about 35% of the articles that PT publishes. Although no one is indispensable, Jeff is among the less expendable PT staff members. He has a good analytic mind that should be used to provide greater input into the department's needs (such as offering ideas for and criticism of [potential] articles).

OVERALL GRADE 4-

ADDITIONAL COMMENTS by Paul Hersch

Under "Executing," my stating that Jeff gets overinvolved may be based on ill-founded perception. Specifically, with regard to the intro to the November 1990 issue, I omitted that Jeff was working under especially tight time constraints (the manuscript was delivered to Jeff after its deadline, which heightened my awareness of passing time), Jeff had to get and incorporate comments from the entire staff, and agreement on the final copy was complicated by key players' being on business trips during the editing process.

Under "Relationships," The last sentence is not meant to be critical of Jeff.

Under "Delegating," the word "drudge" should be not have been used. My purpose in using the word was to point out that Jeff understands that Physics Today is best served when he uses his time to do work that specifically requires his skills.

Under "Potential," I should have pointed out that Jeff and I should set objectives that, if approved by Gloria Lubkin and fulfilled by Jeff, would allow him to achieve a senior editor grade.

Paul Hersch 19 Feb 90

AMERICAN INSTITUTE OF PHYSICS

EMPLOYEE PERFORMANCE REVIEW

Employee: **JEFFREY D SCHMIDT** Division: PHYSICS TODAY

Job Title: ASSOC EDIT LEV I Supervisor: GLORIA LUBKIN

Date Employed: 03/17/81 Date Effective: 03/01/90 Date Due:

Please comment on the following categories:

PLANNING (Practical solution to problems, long versus short range):

Very good at planning work for upcoming article editing. He works best on one project at a time. This is advantageous in that he can concentrate on an individual article. But it's disadvantageous because he postpones other jobs for a very long time. He's fair at long range planning.

EXECUTING (Ability to get ideas accepted by superiors and subordinates):

He's very thorough at article editing and effective with authors. He is tenacious in trying to get his ideas across to superiors and subordinates. However he is often not successful because of his inflexibility.

DELEGATING (Allowing others to do work, assigning work properly):

He delegates work to Elliot, such as keyboarding and art and layout. He has also delegated keyboarding to Kim and appeared to be effective. However, Kim reports difficulty in dealing with Jeff. He has delegated the completion of article edits to Pat Janowski and to Ellen Zeman.

ADAPTABILITY (Flexibility, ability to accept changes, work under pressure):

Jeff tries to accommodate his work habits but he's extremely rigid about his habits, style of work and opinions. He is fair about working under pressure.

DEPENDABILITY (Meeting deadlines, follow-up on detail):

He's very dependable and better than most of the PT staff about meeting deadlines. He's not always in the office when needed. He should keep Paul Hersch and me informed of his whereabouts. He is excellent on all the myriad details connected with article editing.

INITIATIVE (Enthusiasm, interest in work):

He's highly motivated to do superior work on the articles he edits. He does not do well in generating article ideas generally. But he showed good initiative and enthusiasm for a special issue on physics for the general public last year.

RELATIONSHIPS (With superiors, coworkers, and subordinates):

He is persistent about asserting his point of view and can be abrasive with his colleagues. He has been difficult to get along with in my experience.

ATTENDANCE (Punctuality and attendance):

OK

POTENTIAL (Promotability, expansion of responsibility):

AIP Employee Review (Form B) Page 2

COMMENTS:

Jeff is a fine article editor and can be depended on doing two articles per month when he's not on vacation or sick. We have received many letters of praise from authors he's worked with.

Jeff is not doing enough about another important part of his responsibility--reviewing article manuscripts promptly and thoroughly. As a result the pipeline becomes clogged (in part due to his slowness). To offset this danger, I've been assigning reviewing to other staff members and avoiding Jeff's delays. I would like to see him be responsive promptly as I start again to give him regular reviewing assignments.

Rating= 3+

POINTS DISCUSSED AT INTERVIEW:

DOES EMPLOYEE AGREE WITH SUPERVISOR'S APPRAISAL?

Report prepared by Gloria B. Lubkin Date: 3/9/90

Report reviewed by _____ Date: _____

Report discussed with employee by _____ Date: _____

READ 12MAR90 J. Schmitt

(For Personnel Use Only)

Rev. 10/89

D00104

Conv w/ Terri B. 4/24/90
re JS

GBL does not remember agreeing to a revised review last year. The revised review was probably created after the Personnel Comm. met last year. Terri therefore feels I should not agree to it being revised for the Personnel file.

JS has written a memo to John Ryder complaining about his treatment presumably. Terri will tell John that memo should be copied to her and me or else John "tear it up before reading it.

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 01/10/91

EMPLOYEE: **JEFFREY SCHMIDT** DIVISION: PHYS TODAY
EMP NO.: 1437
OLD PAYROLL ACCOUNT: MANAG EDITOR NEW PAYROLL ACCT:

Salary Change: YES **Title Change:** **Transfer:**

REMARKS: EXEMPT

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
ASSOC EDIT LEV I	EY05	$31100-$39500-$47900	03/01/91	03/01/92

Previous Salary	Amount of Increase	New Salary	Percent Increase
44420.0000	1780 ~~4%~~	46,200.00	4%

Quartile: 4 Overall Rating: 4 –

Gloria B. Lubkin
Recommending Party

Authorized Approval

Personnel

TITLE CHANGE INFORMATION

From: ASSOC EDIT LEV I To: Effective:

New Grade: New Range:

Division Head

Personnel

TRANSFER (Division or Charges) **INFORMATION**

From: PHYS TODAY MANAG EDITOR To:

Effective Date:

Division Head

Division Head

Personnel

MISCELLANEOUS REMARKS:
EXEMPT

D00096

Rev. 07/90

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 01/10/91

EMPLOYEE: **JEFFREY SCHMIDT** DIVISION: PHYS TODAY
EMP NO.: 1437
OLD PAYROLL ACCOUNT: MANAG EDITOR NEW PAYROLL ACCT:

Salary Change: YES **Title Change:** **Transfer:**

REMARKS: EXEMPT

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
ASSOC EDIT LEV I	EY05	$31100-$39500-$47900	03/01/91	03/01/92

Previous Salary	Amount of Increase	New Salary	Percent Increase
44420.0000	1780 ~~4%~~	46,200.00	4%

Quartile: 4 Overall Rating: 4 –

Gloria B. Lubkin
Recommending Party Authorized Approval Personnel

TITLE CHANGE INFORMATION

From: ASSOC EDIT LEV I To: Effective:

New Grade: New Range:

Division Head Personnel

TRANSFER (Division or Charges) **INFORMATION**

From: PHYS TODAY MANAG EDITOR To:

Effective Date:

Division Head Division Head Personnel

MISCELLANEOUS REMARKS:
EXEMPT

D00097

Rev. 07/90

TO: GBL

FROM: Paul Hersch

DATE: 29 January 1991

RE: Jeff Schmidt's article output

Per your request for a tally of Jeff Schmidt's article output for 1988-1990, I have reviewed the records. The counts are:

Year	Articles Edited
1988	15
1989	15 1/2
1990	16

AMERICAN INSTITUTE OF PHYSICS

INTER-OFFICE MEMORANDUM

DATE: 24 April 1990

TO: G. Lubkin

FROM: T. C. Braun TCB

SUBJECT: May Personnel Committee Action

		POSITION	SALARY	NEXT REVIEW	QUAR-TILE
NAME:	Jeffrey Schmidt				
FROM:		Assoc Ed I	$42,300 yr.		3
TO:			44,420 yr.	3/1/91	4

D00109

TO: Gloria Lubkin

FROM: Paul Hersch

DATE: 28 February 1991

RE: Report on Jeff's Interview Relating to His 1991 Performance Evaluation

I presented Jeff's performance evaluation to him on 13 Feb during the late morning. He returned to my office later that day to discuss it.

He was satisfied with the overall tenor of the evaluation but challenged some of my statements. In particular,

Under "Executing," Jeff objected to my stating that he gets overinvolved. He said that he considered his editing of an article complete once it left his office, but that if the copy editor came up with questions, he felt it part of his job to answer those questions. Jeff specifically objected to my using the example of the intro for the November 1990 issue, adding that my perception was biased by events: He cited the manuscript's being written late; the need to send it to several staff people for comments; and the fact that key people had taken business trips, complicating discussions and approvals.

Under "Relationships," Jeff objected to my last sentence, which he thought was critical of him.

Under "Delegating," Jeff objected to the word "drudge." He said it denigrated the secretaries and implied that he never did such work.

Under "Potential," Jeff pointed out that the section was there for the evaluator to describe how the employee might move ahead in AIP.

After hearing Jeff out, I asked to adjourn the interview until Thursday or Friday so that I might attend to other matters before commenting on his objections.

I met with Jeff three more times between the 14th and the 20th for about 15 to 20 minutes, usually developing an acceptable response to only one item each time. In essence, these were that

> the last sentence under "relationships" was not meant to be critical of him.

it would have been best not to use the word "drudge," under "Delegating." I explained that my purpose in using the word was to point out that Jeff understands that Physics Today is best served when he uses his time to do work that specifically requires his skills.

I agreed with his comment about the use of the "Potential" category. I pointed out that with the new evaluation form, he and I could set objectives that, if approved by Gloria Lubkin and fulfilled by Jeff, would allow him to achieve a senior editor grade.

my comments under "Executing," could be colored by circumstance; that the lateness of the November manuscript could have sensitized my awareness of the time taken for, and nature of, the work remaining to be done; and that I ought to have mentioned possible mitigating circumstances in the evaluation.

Once these points were clarified, Jeff signed the evaluation form, and it was faxed to Woodbury prior to Noon of 20 February in time for consideration during the employee review committee meeting.

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 01/14/92

EMPLOYEE: **JEFFREY SCHMIDT** DIVISION: PHYS TODAY
EMP NO.: 1437
OLD PAYROLL ACCOUNT: MANAG EDITOR NEW PAYROLL ACCT:

Salary Change: YES **Title Change:** **Transfer:**

REMARKS: EXEMPT

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
ASSOC EDT LEV II	EY07	$40300-$51~~550~~600-$62800	03/01/92	03/01/93

Previous Salary	Amount of Increase	New Salary	Percent Increase
47600.0000	2,900	50,500	6.1

Quartile: 2 Overall Rating: 4 —

X Gloria Lubkin X

Recommending Party Authorized Approval Personnel

TITLE CHANGE INFORMATION

From: ASSOC EDT LEV II To: Effective:

New Grade: New Range:

Division Head Personnel

TRANSFER (Division or Charges) **INFORMATION**

From: PHYS TODAY MANAG EDITOR To:

Effective Date:

Division Head Division Head Personnel

MISCELLANEOUS REMARKS:
EXEMPT

D00084

Rev. 07/90

AMERICAN INSTITUTE OF PHYSICS
EXEMPT PERFORMANCE PLAN AND APPRAISAL FORM

Employee Name: Jeff Schmidt

Division: Physics Today **Manager:** Gloria Lubkin. Reports to Ken McNaughton

Job Title: Associate Editor

Planning Date: _____ **Review Date(s):** _____

+=+

Instructions for Performance Appraisal: Review your completed planning form and notes to assess the effectiveness with which the employee carried out each responsibility. Select the numerical rating level (summarized below) that best suits actual performance for each major responsibility. All component tasks should be reviewed in order to determine how well a responsibility has been fulfilled.

5 *Consistently Exceeds Job Requirements - Performance is consistently exceptional; employee demonstrates unusually high level of accomplishment, and has mastered all essential elements of the component tasks in this responsibility.*

4 *Exceeds Job Requirements - Consistently performs full range of tasks in this responsibility in a manner far above satisfactory. Has full understanding of all aspects of this responsibility.*

3 *Meets Job Requirements - Performance is satisfactory. Employee accomplishes tasks and meets expectations. Improvement continues at the expected rate, and performance is what can be expected from a well-qualified individual. Employee requires a minimum amount of counsel, guidance, and supervision.*

2 *Partially Meets Job Requirements - Needs improvement to meet acceptable level of performance; may still require considerable supervision before performance is satisfactory. May be characterized by insufficient knowledge, ineffective planning, and/or unproductive resource management.*

1 *Does Not Meet Job Requirements - Has demonstrated only minimally acceptable level of performance. May be characterized by lack of knowledge, ambivalent judgement, negligent planning, and/or wasteful resource management.*

Enter a numerical rating for each major responsibility in the Rating column; your choices are 5, 4.5, 4, 3.5, 3, 2.5, 2, 1.5, and 1. Specific written comments must be provided for performance ratings of 5, 4.5, 2, 1.5, and 1, explaining why these high or low ratings were given. Also, if the employee's achievement in one responsibility differs substantially from the achievement in another, this should be discussed in the Appraiser's Comments section.

The numerical rating for each major responsibility times its assigned weight gives a numerical score; find the sum of scores for all major responsibilities, and convert this to a rated performance level (see the Managers' Performance Appraisal Worksheet). Enter the OVERALL RATING (not the total score) on the Performance Appraisal Form. Complete the comments portion of the appraisal form to document the employee's overall achievements and areas in need of improvement.

Major Responsibilities	*Weight*
1. Edit articles: A. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact. B. Communicate with authors in person and by telephone, letter, fax, and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes. C. Negotiate with authors for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions. D. Revise articles in conjunction with copy editor, editor and authors' corrections. E. Proofread galleys, help prepare page layouts, check bluelines. F. Perform these tasks in accordance with production schedule.	70%
2. Review Manuscripts: A. Read submitted manuscripts at request of the editor and return a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces. B. After editor recommends referees, ask them to review manuscripts and communicate with them to ensure the reviews arrive.	15%

Component Tasks	Comments	Rating
		4.0
■ Jeff is our senior editor for feature articles. He can handle a wide range of subjects and degrees of difficulty, and always produces a first-class editing job.		
■ Jeff is very thorough and effective at communicating with authors. He is careful to get the best possible article onto the editing desk and is diligent in following up with authors.		
■ Fine. Jeff is very good at getting good illustrations for articles.		
■ Fine.		
■ Fine.		
■ Jeff is very conscious of the schedule and tries hard to meet deadlines. He tends to resist requests for speeding up the editing process, claiming it would jeopardise quality. At times, it would be more useful to have him process more articles with less thoroughness. For 1991, Jeff edited 13 articles. Comparable article numbers for previous years were 15 1/2 (1989) and 16 (1990).* Jeff should strive to maintain the quantity as well as the quality of his work.		
		3.5
■ Jeff submits careful and competent reviews. He can produce these at short notice if asked, but is careful to point out that this will take him off editing work and hence cause delays. Left to his own devices, he tends to work continuously on editing and leaves reviews until he is reminded. This can cause problems if the editor needs a review in a hurry and has not communicated a deadline for it.		
■ Good. As in 1 above, he may need reminding.		

* In 1991 Jeff was asked to help with article solicitation more than in previous years. One article he edited was by two authors and was more time-consuming than most.

Major Responsibilities	*Weight*
3. Support the editorial effort of PT: A. Submit ideas to editor for feature articles and to staff reporters and/or editor for news stories. B. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc. C. Have discussions with other editors about editorial matters and help them with their editing. D. Read relevant periodicals and attend relevant meetings to keep abreast of developments in physics.	15%

Component Tasks	Comments	Rating
		2.0

- Considering his seniority and experience, Jeff could submit more ideas.

- Jeff will attend general staff meetings when asked, but is generally guarded with his comments and sometimes seems preoccupied with his own materials. In small meetings his contributions are usually precise and helpful.

- Jeff is sought out by a number of members of the staff for advice on editing and is helpful in consultations with his peers.

- Jeff receives a lot of wide range of periodicals in physics, science, business and education. However, he does not appear to translate many things he reads in periodicals into publishable ideas for articles and news items. He does not attend, nor ask to attend, a lot of meetings.

S 001306

Overall Rating 4 –

Appraiser's Comments - Please comment on the employee's overall performance during this appraisal period, including demonstrated strengths and weaknesses. Areas needing improvement should be specified and observed during the next appraisal period.

Jeff is a fine editor of feature articles and a good reviewer. He works steadily when he is in the office and produces a good volume of work. If he shared himself a bit more in staff meetings, he would make a more rounded staff member. Jeff has been on the staff for eleven years as associate editor and has accumulated a lot of wisdom about the magazine.

Employee's Comments - Use this space, if desired, to comment on this review.

SIGNATURES:

Employee: READ 11 FEB. 92 J. Schmidt *Date:* _____

Appraiser: _____ *Date:* 11 Feb 1992
[Manager, Director or Officer]

Both the appraiser and employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review, but that he/she has seen the form and participated in the performance appraisal.

H.R. Review _____ *Date:* _____

PHYSICS TODAY **12 February 1992**

PERFORMANCE PLAN

Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Associate Editor Level II Reporting to: Ken McNaughton
Planning Date: Review Date(s):

Major Responsibility 1: Edit articles

Weight: 70%
Component tasks:
1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Major Responsibility 2: Review manuscripts

Weight: 15%
Component tasks:
1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. After editor recommends referees, ask them to review manuscripts and communicate with them to ensure reviews arrive.

Major Responsibility 3: Support the editorial effort of PT

Weight: 15%
Component tasks:
1. Submit ideas for feature articles and news stories.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Have discussions with other editors about editorial matters and help them with their editing.
4. Read relevant periodicals and attend relevant meetings to keep abreast of devlepments in physics.

AMERICAN INSTITUTE OF PHYSICS
EXEMPT PERFORMANCE PLAN AND APPRAISAL FORM

Employee Name: Jeff Schmidt

Division: Physics Today **Manager:** Gloria Lubkin. Reports to Ken McNaughton

Job Title: Associate Editor

Planning Date: _____ **Review Date(s):** _____

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Instructions for Performance Appraisal: Review your completed planning form and notes to assess the effectiveness with which the employee carried out each responsibility. Select the numerical rating level (summarized below) that best suits actual performance for each major responsibility. All component tasks should be reviewed in order to determine how well a responsibility has been fulfilled.

5 *Consistently Exceeds Job Requirements - Performance is consistently exceptional; employee demonstrates unusually high level of accomplishment, and has mastered all essential elements of the component tasks in this responsibility.*

4 *Exceeds Job Requirements - Consistently performs full range of tasks in this responsibility in a manner far above satisfactory. Has full understanding of all aspects of this responsibility.*

3 *Meets Job Requirements - Performance is satisfactory. Employee accomplishes tasks and meets expectations. Improvement continues at the expected rate, and performance is what can be expected from a well-qualified individual. Employee requires a minimum amount of counsel, guidance, and supervision.*

2 *Partially Meets Job Requirements - Needs improvement to meet acceptable level of performance; may still require considerable supervision before performance is satisfactory. May be characterized by insufficient knowledge, ineffective planning, and/or unproductive resource management.*

1 *Does Not Meet Job Requirements - Has demonstrated only minimally acceptable level of performance. May be characterized by lack of knowledge, ambivalent judgement, negligent planning, and/or wasteful resource management.*

Enter a numerical rating for each major responsibility in the Rating column; your choices are 5, 4.5, 4, 3.5, 3, 2.5, 2, 1.5, and 1. Specific written comments must be provided for performance ratings of 5, 4.5, 2, 1.5, and 1, explaining why these high or low ratings were given. Also, if the employee's achievement in one responsibility differs substantially from the achievement in another, this should be discussed in the Appraiser's Comments section.

The numerical rating for each major responsibility times its assigned weight gives a numerical score; find the sum of scores for all major responsibilities, and convert this to a rated performance level (see the Managers' Performance Appraisal Worksheet). Enter the OVERALL RATING (not the total score) on the Performance Appraisal Form. Complete the comments portion of the appraisal form to document the employee's overall achievements and areas in need of improvement.

Major Responsibilities	*Weight*
1. Edit articles: A. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact. B. Communicate with authors in person and by telephone, letter, fax, and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes. C. Negotiate with authors for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions. D. Revise articles in conjunction with copy editor, editor and authors' corrections. E. Proofread galleys, help prepare page layouts, check bluelines. F. Perform these tasks in accordance with production schedule.	70%
2. Review Manuscripts: A. Read submitted manuscripts at request of the editor and return a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces. B. After editor recommends referees, ask them to review manuscripts and communicate with them to ensure the reviews arrive.	15%

PHYSICS TODAY **3 February 1993**

PERFORMANCE PLAN 1992

PERIOD: February 1992-January 1993
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Associate Editor Level II Reporting to: Ken McNaughton
Planning Date: Review Date(s):

Major Responsibility 1: Edit articles

Weight: 70%
Component tasks:
1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Major Responsibility 2: Review manuscripts

Weight: 15%
Component tasks:
1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. After editor recommends referees, ask them to review manuscripts and communicate with them to ensure reviews arrive.

Major Responsibility 3: Support the editorial effort of PT

Weight: 15%
Component tasks:
1. Submit ideas for feature articles and news stories.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Have discussions with other editors about editorial matters and help them with their editing.
4. Read relevant periodicals and attend relevant meetings to keep abreast of devlepments in physics.

PHYSICS TODAY **3 February 1993**

PERFORMANCE PLAN 1993

PERIOD: February 1993-January 1994
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Associate Editor Reporting to: Ken McNaughton
Level II

Major Responsibility 1: Edit articles

Weight: 70%

Component tasks:

1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Major Responsibility 2: Solicit and review manuscripts

Weight: 20%

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Major Responsibility 3: Support the editorial effort of PT

Weight: 10%

Component tasks:

1. Submit ideas for feature articles and news stories.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. On request, read and review submitted manuscripts for letters to the editor and opinion pieces.
4. Read relevant periodicals and attend relevant meetings to keep abreast of devlepments in physics.

AMERICAN INSTITUTE OF PHYSICS
EXEMPT PERFORMANCE PLAN AND APPRAISAL FORM

Employee Name: Jeff Schmidt

Division: Physics Today *Manager:* Gloria Lubkin
Reporting To: Ken McNaughton

Job Title: Associate Editor Level II

Planning Date: _____ *Review Date(s):* _____

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Instructions for Performance Appraisal: *Review your completed planning form and notes to assess the effectiveness with which the employee carried out each responsibility. Select the numerical rating level (summarized below) that best suits actual performance for each major responsibility. All component tasks should be reviewed in order to determine how well a responsibility has been fulfilled.*

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The numerical rating for each major responsibility times its assigned weight gives a numerical score; find the sum of scores for all major responsibilities, and convert this to a rated performance level (see the Managers' Performance Appraisal Worksheet). Enter the OVERALL RATING (not the total score) on the Performance Appraisal Form. Complete the comments portion of the appraisal form to document the employee's overall achievements and areas in need of improvement.

Major Responsibilities	*Weight*
1. Edit articles: A. Communicate with authors in person and by telephone, letter, fax, and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes. B. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact. C. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions. D. Revise article in conjunction with copy editor, editor and author's corrections. E. Proofread galleys, help prepare page layouts, check bluelines. F. Perform these tasks in accordance with production schedule.	80%
2. Take responsibility for assigned feature articles, in consultation with the editor-in-chief: A. Get in touch with the author when the outline is due. B. Seek advice from a referee on the outline C. Give feedback to the author about the outline. D. Call the author when the manuscript is due. E. Evaluate the manuscript F. Contact a referee	15%
3. Support the editorial effort of PT: A. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces. B. Submit ideas for feature articles and news stories. C. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.	5%

Component Tasks	Comments	Rating
1. Jeff is a diligent editor and follows each step of the editing process very carefully. He is good at communicating with authors and gets good results from them, including revisions. He pays attention to schedule and predicts where bottlenecks might occur. Jeff is the primary editor for feature articles at PT. He edited the following numbers of articles in these years (using for comparison, the months in which these articles were published, March through February, listing by the March date; some of these numbers involve revisions from numbers used in last year's review; the current numbers were developed from consistent records in the art department, whereas some of the numbers used last year were quotes from a former appraiser): Year: 1986 1987 1988 1989 1990 1991 1992 Number: 19 15 16 13 13 13 12 Jeff prefers to work carefully and thoroughly on a smaller number of manuscripts, and resists pressure to do more, even when asked to edit more quickly and less thoroughly and thereby perhaps not make an article as clear, concise and readable as he is capable of doing. It should be noted that Jeff has taken on more responsibility for assigned articles in the last twelve months, as discussed in the next section. However, 1993 is going to be a difficult year for PT because of the upcoming move and pressure to release more editors for Search and Discovery. Jeff will be required to edit more articles than he has been doing 1989-1992, and more like the rate he maintained 1986-1988. He will therefore be assigned two articles in most months, and will be expected to edit 16 published articles March 93 through February 94.		3.0
2. This procedure was developed with Jeff and the other article editors and formalized around August 1992 as a method of getting editors involved with the author earlier in the process, and as a way of trying to get more articles in the pipeline. Although Jeff appears to like the idea of getting involved earlier in the cycle, he resisted the idea of having to do more work, saying that it would be difficult to get all his editing done. It is felt that some reduction of editing may be necessary to allow this extra step. Jeff is very capable on all steps and needs to allow time for these tasks during his editing day.		3.0
3. Jeff is a careful reviewer of manuscripts and his opinions are valuable. He reviewed a reasonable number of feature articles in the last twelve months (12), but he takes a long time to return the review (average 41 days). He needs to aim to return all reviews within two weeks. Jeff is not strong on submitting ideas for feature articles and news stories.		2.0

Overall Rating 3.0

Appraiser's Comments - *Please comment on the employee's overall performance during this appraisal period, including demonstrated strengths and weaknesses. Areas needing improvement should be specified and observed during the next appraisal period.*

Jeff is a good editor and can be trusted to do a good job in relating to prominent physicist authors. He tends to resist pressure and this makes it difficult to adjust loads in times of stress, which we have now because of various changes at the magazine. He has taken on some additional responsibility for assigned articles and needs to continue to be attuned to what is required at the magazine, rather than what he is used to or what he would prefer for his own workload. Jeff makes himself available for a number of editors who consult him on matters relating to their own work.

Employee's Comments - *Use this space, if desired, to comment on this review.*

SEE ATTACHED LETTER ON TITLE CHANGE.

SIGNATURES:

Employee: J. Schmitt *Date:* 17 FEB. 93

Appraiser: Gloria Kilkin *Date:* 2/17/93
[Manager, Director or Officer]

Both the appraiser and employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review, but that he/she has seen the form and participated in the performance appraisal.

H.R. Review _____ *Date:* _____

MANUSCRIPT REVIEWS BY GC

February 8, 1993

Mar. 92 to Jan. 93

#	IN	OUT	DAYS
5950	3/31/92	4/14/92	14
5993	3/23/92	4/29/92	36
6015	4/9/92	4/14/92	5
6103	6/16/92	6/22/92	6
6115	6/19/92	6/22/92	3
6134	7/6/92	7/6/92	0
6143	7/8/92	7/17/92	9
6200	8/12/92	8/25/92	13
6222	8/31/92	9/1/92	1
6346	11/25/92	11/26/92	1
6349	11/30/92	12/4/92	4
6389	1/15/93	1/25/93	10
Reviews completed		12	
Total days			102
Average days per review			9

IN Date manuscript given to editor
OUT Date review received
DAYS Number of calendar days between IN and OUT, counting 30 days for one whole month.

ARTICLES EDITED BY JEFF SCHMIDT

February 8, 1993

	1992/1993	1991/1992	1990/1991	1989/1990
March	--	Gilman	Salby Lankford	Mulligan
April	Holonyak Pake	Gillette Kellerman	--	Nero
May	--	--	Fleming Zewail	--
June	Wehrli	Schrieffer Jorgensen	--	Karle Okun
July	Allen	--	Miner	Birgenweau Wolfenstein
August	Attwood	Stodolsky Upton	Drell/Okun Fainberg	Neuschatz
September	Munk Hogan	Swartz	Bethe	Tani
October	Falicov Esaki	--	Rugar (Hansma)	Lounasmaa
November	--	Huffman Donnelly	Tressel Forum	Hauptman
December	Robertson Starkweather	Baker	Berry	Pais
January	Pobell	Callen	Scher	--
February	--	Tremaine	--	Smith Levi
TOTAL	12	13	13	13

D00019

ARTICLES EDITED BY JEFF SCHMIDT

February 8, 1993

PERIOD	1988/89	1987/88	1986/87
March	Passel	Damask	Clarke Maple
April	Agarwal	Donnelly Nagle	--
May	Sagdeev Axford	Swensen Moyer	Greene Oppenheim
June	Agarwal Weart	Wineland	McDermott
July	Barschall	Alvarez	Babcock
August	Goldberg	Evernden	Quate Bertsch
September	Josephson	Burrows	Alfven Johnson
October	Seidel Feinberg	Winkler	Ghate Eastman
November	Brown	Can/Pat	Reif Irvine
December	Wong Lee	Hayashi Kanamura	Bak Perl
January	Kleppner	Lewis	Bauer
February	Goodstein	Evans	Maris Schartz
TOTAL	16	15	19

MANUSCRIPT REVIEWS BY JS February 8, 1993

Mar. 92 to Jan. 93

#	IN	OUT	DAYS
5950	3/6/92	4/14/92	38
5953	3/6/92	3/26/92	20
5995	4/9/92	7/13/92	94
6014	4/9/92	5/20/92	41
6030	4/13/92	4/28/92	15
6036	4/27/92	5/29/92	32
6052	5/5/92	7/16/92	71
6053	5/4/92	5/4/92	0
6114	6/19/92	8/4/92	45
6114 (revision)	7/2/92	8/4/92	32
6080	7/9/92	7/17/92	8
6151	7/20/92	10/22/92	92
6404	1/25/93		
Reviews completed		12	
Total days			492
Average days per review			41

IN Date manuscript given to editor
OUT Date review received
DAYS Number of calendar days between IN and OUT, counting 30 days for one whole month.

PHYSICS TODAY
from Ken McNaughton

2/16/93

GWORLA

PHT



D00042

12 February 1993

Ken --

This is my request that you revise my annual review. It is not intended to be appended to the review, although, as you will see, I originally wrote it for that purpose. I'm sorry I didn't have time to change the format.

-- Jeff

Physics Today editor Gloria Lubkin and the Physics Today staff consider me the senior editor of feature articles at the magazine. Yet, the seniority I have earned through 12 years of conscientious, high-quality work is not reflected in my job title. If the American Institute of Physics wished to hire an editor with 12 years' experience, it would almost certainly have to offer a title reflecting the individual's seniority. AIP should recognize the experience and seniority gained by its own employees, even if it does so in a way that costs it nothing, such as through a change to a senior nonmanagement title; I feel this is long overdue in my case.

Although the promotion should be given in consideration of 12 years of service to AIP with many excellent reviews and letters of praise from many prominent physicists, the discussion of it has focused mainly on the most recent annual review. So I should say something here about my work over the last year.

Physics Today managing editor Ken McNaughton, who wrote the review, acknowledges that in the last year I maintained the quality and quantity of my feature article editing while greatly expanding my work in the solicitation of articles. Yet, in spite of this increase in work over the previous year, he has lowered my rating to 3.0 without a clear explanation of the rationale for this surprising response. When he gave my article editing a rating of 4.0 last year, the implication was that if I kept up the good work I would continue to get a good rating, as had been the case with previous managing editors.

But after a year of even harder work and perfect attendance I am told that my work is to be judged by a crude new method created hurriedly and with unexplained motivation during the review process itself. This is unfair. I should have been told at the beginning of the year how my work would be judged. Could I reasonably have been expected to know by what criteria my work would be evaluated if the managing editor himself did not know?

Crude is the correct word to describe the new assessment method and its use to rewrite history. The numbers in the table in this year's review are inaccurate as a measure of the work I have been doing, and not just because they are based on old art-department schedules that do not need to be as accurate as the previous managing

editors' records in this area. It is not unusual for one article to take many times longer to edit than another. Editing a debate article with two independent authors, for example, can be like editing two articles. And the trend has been to give me more and more of the difficult technical articles and fewer and fewer of the articles on subjects that other editors can handle, such as physics education (this in spite of the fact that physics education is one of my interests and areas of expertise).

The previous managing editor also tabulated the articles I edited, but he was able to take into account factors such as I have mentioned, and he came up with very different numbers for many of the years listed here. I object to having a new, crude, misleading measure of my work sprung on me at the end of my assessment period and then featured as the centerpiece of my review. The review should be rewritten to come across as more in touch with what our work at Physics Today is all about and more confidence-inspiring, or, if not that, at least to explicitly acknowledge the change in the assessment method. Staff members need to be told in advance how we are to be judged. If the final tabulation really is going to be pretty much oblivious to the nature of the work, then taking on difficult assignments will suddenly become a rather foolish thing to do, creating a new issue in the office -- the fairness of editing assignments.

A final note: Given the recent concern about the magazine's unreliable adherence to schedule, it should be noted that when I have been allowed to manage my time more freely (such as during the 10½-year period from March 1981 to August 1991) I have been the Physics Today staff member with the best record of editing articles in a timely fashion. The art-department records are quite accurate on dates that articles were sent to the printer and could be checked to verify my claim. I request that such a check be made and added to this review form. Keep in mind that these records understate the degree to which I work ahead, because articles edited early or on schedule are copy edited and checked by the editor less quickly than articles that come in late.

AMERICAN INSTITUTE OF PHYSICS

INTER - OFFICE MEMORANDUM

February 17, 1993

To: Jeff Schmidt
cc: Terri Braun, Gloria Lubkin,
From: Ken McNaughton
Subject: Title change

Jeff

The goals we have discussed in your performance appraisal call for you to edit more articles per month than you have been doing over the last four years, 1989-1992. A rate of 16 articles per year means about 1.3 articles per month, for example:

March	Zabusky Dawson
April	Tsong
May	Lewis or something else
June	Mendez Plus?
July	One
August	One Another

If we aim at this schedule for you, it would be nine articles in six months. Allowing for glitches (which sometimes happen) this should guarantee you edit eight articles in six months, which is the required rate.

You are required to take responsibility for assigned articles as discussed in the review.

You should return your reviews of submitted manuscripts within two weeks of receiving them.

If you can meet these goals and maintain satisfactory performance, we would evaluate your performance again early in August and recommend a title change to be considered by the Personnel Committee in August.

Ken McNaughton
Managing Editor

AMERICAN INSTITUTE OF PHYSICS
EXEMPT PERFORMANCE PLAN AND APPRAISAL FORM

Employee Name: Jeff Schmidt

Division: Physics Today **Manager:** Gloria Lubkin
Reporting To: Ken McNaughton

Job Title: Associate Editor Level II

Planning Date: _____ **Review Date(s):** _____

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Instructions for Performance Appraisal: Review your completed planning form and notes to assess the effectiveness with which the employee carried out each responsibility. Select the numerical rating level (summarized below) that best suits actual performance for each major responsibility. All component tasks should be reviewed in order to determine how well a responsibility has been fulfilled.

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*Enter a numerical rating for each major responsibility in the **Rating** column; your choices are 5, 4.5, 4, 3.5, 3, 2.5, 2, 1.5, and 1. Specific written comments **must** be provided for performance ratings of 5, 4.5, 2, 1.5, and 1, explaining why these high or low ratings were given. Also, if the employee's achievement in one responsibility differs substantially from the achievement in another, this should be discussed in the Appraiser's Comments section.*

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2. Take responsibility for assigned feature articles, in consultation with the editor-in-chief: A. Get in touch with the author when the outline is due. B. Seek advice from a referee on the outline C. Give feedback to the author about the outline. D. Call the author when the manuscript is due. E. Evaluate the manuscript F. Contact a referee	15%
3. Support the editorial effort of PT: A. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces. B. Submit ideas for feature articles and news stories. C. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.	5%

Component Tasks	Comments	Rating
1. Jeff is a diligent editor and follows each step of the editing process very carefully. He is good at communicating with authors and gets good results from them, including revisions. He pays attention to schedule and predicts where bottlenecks might occur. Jeff is the primary editor for feature articles at PT. He edited the following numbers of articles in these years (using for comparison, the months in which these articles were published, March through February, listing by the March date; some of these numbers involve revisions from numbers used in last year's review; the current numbers were developed from consistent records in the art department, whereas some of the numbers used last year were quotes from a former appraiser): Year: 1986 1987 1988 1989 1990 1991 1992 Number: 19 15 16 13 13 13 12 Jeff prefers to work carefully and thoroughly on a smaller number of manuscripts, and resists pressure to do more, even when asked to edit more quickly and less thoroughly and thereby perhaps not make an article as clear, concise and readable as he is capable of doing. It should be noted that Jeff has taken on more responsibility for assigned articles in the last twelve months, as discussed in the next section. However, 1993 is going to be a difficult year for PT because of the upcoming move and pressure to release more editors for Search and Discovery. Jeff will be required to edit more articles than he has been doing 1989-1992, and more like the rate he maintained 1986-1988. He will therefore be assigned two articles in most months, and will be expected to edit 16 published articles March 93 through February 94.		3.0
2. This procedure was developed with Jeff and the other article editors and formalized around August 1992 as a method of getting editors involved with the author earlier in the process, and as a way of trying to get more articles in the pipeline. Although Jeff appears to like the idea of getting involved earlier in the cycle, he resisted the idea of having to do more work, saying that it would be difficult to get all his editing done. It is felt that some reduction of editing may be necessary to allow this extra step. Jeff is very capable on all steps and needs to allow time for these tasks during his editing day.		3.0
3. Jeff is a careful reviewer of manuscripts and his opinions are valuable. He reviewed a reasonable number of feature articles in the last twelve months (12), but he takes a long time to return the review (average 41 days). He needs to aim to return all reviews within two weeks. Jeff is not strong on submitting ideas for feature articles and news stories.		2.0

Overall Rating 3.0

Appraiser's Comments *- Please comment on the employee's overall performance during this appraisal period, including demonstrated strengths and weaknesses. Areas needing improvement should be specified and observed during the next appraisal period.*

Jeff is a good editor and can be trusted to do a good job in relating to prominent physicist authors. He tends to resist pressure and this makes it difficult to adjust loads in times of stress, which we have now because of various changes at the magazine. He has taken on some additional responsibility for assigned articles and needs to continue to be attuned to what is required at the magazine, rather than what he is used to or what he would prefer for his own workload. Jeff makes himself available for a number of editors who consult him on matters relating to their own work.

Employee's Comments *- Use this space, if desired, to comment on this review.*

SEE ATTACHED LETTER ON TITLE CHANGE.

SIGNATURES:

Employee: A. Schmitt *Date:* 17 FEB. 93

Appraiser: Gloria Kulukin *Date:* 2/17/93
[Manager, Director or Officer]

Both the appraiser and employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review, but that he/she has seen the form and participated in the performance appraisal.

H.R. Review _____ *Date:* _____

AMERICAN INSTITUTE OF PHYSICS

INTER - OFFICE MEMORANDUM

February 17, 1993

To: Jeff Schmidt
cc: Terri Braun, Gloria Lubkin,
From: Ken McNaughton
Subject: Title change

Jeff

The goals we have discussed in your performance appraisal call for you to edit more articles per month than you have been doing over the last four years, 1989-1992. A rate of 16 articles per year means about 1.3 articles per month, for example:

March	Zabusky Dawson
April	Tsong
May	Lewis or something else
June	Mendez Plus?
July	One
August	One Another

If we aim at this schedule for you, it would be nine articles in six months. Allowing for glitches (which sometimes happen) this should guarantee you edit eight articles in six months, which is the required rate.

You are required to take responsibility for assigned articles as discussed in the review.

You should return your reviews of submitted manuscripts within two weeks of receiving them.

If you can meet these goals and maintain satisfactory performance, we would evaluate your performance again early in August and recommend a title change to be considered by the Personnel Committee in August.

Ken McNaughton
Managing Editor

D00038

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 01/13/93

EMPLOYEE: **JEFFREY SCHMIDT** DIVISION: PHYS TODAY
EMP NO.: 1437
OLD PAYROLL ACCOUNT: MANAG EDITOR NEW PAYROLL ACCT:

Salary Change: YES **Title Change:** **Transfer:**

REMARKS: EXEMPT

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
ASSOC EDT LEV II	EY07	$41500-$53100-$64700	03/01/93	03/01/94

Previous Salary	Amount of Increase	New Salary	Percent Increase
50500.0000	2200	52700	4.4

Quartile: 2 Overall Rating: 3

Gloria Rubin

Recommending Party Authorized Approval Personnel

TITLE CHANGE INFORMATION

From: ASSOC EDT LEV II To: Effective:

New Grade: New Range:

Division Head Personnel

TRANSFER (Division or Charges) **INFORMATION**

From: PHYS TODAY MANAG EDITOR To:

Effective Date:

Division Head Division Head Personnel

MISCELLANEOUS REMARKS:
EXEMPT

D00039

Rev. 07/90

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 06/17/93

EMPLOYEE: **JEFFREY SCHMIDT** DIVISION: PHYS TODAY
EMP NO.: 1437
OLD PAYROLL ACCOUNT: MANAG EDITOR NEW PAYROLL ACCT:

Salary Change: YES **Title Change: YES** **Transfer:**

REMARKS: EXEMPT PROMOTION ONLY

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
ASSOC EDT LEV II	EY07	$41500-$53100-$64700	08/01/93	03/01/94

Previous Salary	Amount of Increase	New Salary	Percent Increase
52700.0000	1600	54300	3.04

Quartile: 2 Overall Rating:

Gloria Lubkin

Recommending Party Authorized Approval Personnel

TITLE CHANGE INFORMATION

From: ASSOC EDT LEV II To: SENIOR ASSOCIATE EDITOR Effective: 08/01/93

New Grade: New Range:

Gloria Lubkin

Division Head Personnel

TRANSFER (Division or Charges) **INFORMATION**

From: PHYS TODAY MANAG EDITOR To:

Effective Date:

Division Head Division Head Personnel

MISCELLANEOUS REMARKS:
EXEMPT PROMOTION ONLY

D00075

Rev. 07/90

1. Edit articles: 80%
   A. Communicate with authors in person and by telephone, letter, fax, and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
   B. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
   C. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
   D. Revise article in conjunction with copy editor, editor and author's corrections.
   E. Proofread galleys, help prepare page layouts, check bluelines.
   F. Perform these tasks in accordance with production schedule.

2. Take responsibility for assigned feature articles, in consultation with the editor-in-chief: 15%
   A. Get in touch with the author when the outline is due.
   B. Seek advice from a referee on the outline
   C. Give feedback to the author about the outline.
   D. Call the author when the manuscript is due.
   E. Evaluate the manuscript
   F. Contact a referee

3. Support the editorial effort of PT: 5%
   A. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
   B. Submit ideas for feature articles and news stories.
   C. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.

1. Jeff is a diligent editor and follows each step of the editing process very carefully. He is good at communicating with authors and gets good results from them, including revisions. He pays attention to schedule and predicts where bottlenecks might occur. Jeff is the primary editor for feature articles at PT. He edited the following numbers of articles in these years (using for comparison, the months in which these articles were published, March through February, listing by the March date; some of these numbers involve revisions from numbers used in last year's review; the current numbers were developed from consistent records in the art department, whereas some of the numbers used last year were quotes from a former appraiser): 3.0

Year:	1986	1987	1988	1989	1990	1991	1992
Number:	19	15	16	13	13	13	12

Jeff prefers to work carefully and thoroughly on a smaller number of manuscripts, and resists pressure to do more, even when asked to edit more quickly and less thoroughly, thereby perhaps not making an article as clear, concise and readable as he is capable of doing. It should be noted that Jeff was asked to take more responsibility for assigned articles in the last twelve months, as discussed in the next section. However, 1993 is going to be a difficult year for PT because of the upcoming move and pressure to release more editors for Search and Discovery. Jeff will be required to edit more articles than he has been doing 1989-1992, and more like the rate he maintained 1986-1988. He will therefore be assigned two articles in most months, and will be expected to edit 16 published articles March 93 through February 94.

2. This procedure was developed with Jeff and the other article editors and formalized around August 1992 as a method of getting editors involved with the author earlier in the process, and as a way of trying to get more articles in the pipeline. Although Jeff appears to like the idea of getting involved earlier in the cycle, he resisted the idea of having to do more work, saying that it would be difficult to get all his editing done. It is felt that some reduction of editing may be necessary to allow this extra step. Jeff is very capable on all steps and needs to allow time for these tasks during his editing day. 3.0

3. Jeff is a careful reviewer of manuscripts and his opinions are valuable. He reviewed a reasonable number of feature articles in the last twelve months (12), but he takes a long time to return the review (average 41 days). He needs to aim to return all reviews within two weeks. Jeff is not strong on submitting ideas for feature articles and news stories. 2.0

3.0

Jeff is a good editor and can be trusted to do a good job in relating to prominent physicist authors. He tends to resist pressure and this makes it difficult to adjust loads in times of stress, which we have now because of various changes at the magazine. He has taken on some additional responsibility for assigned articles and needs to continue to be attuned to what is required at the magazine, rather than what he is used to or what he would prefer for his own workload. Jeff makes himself available for a number of editors who consult him on matters relating to their own work.

Component Tasks	Comments	Rating
		4.0
■ Jeff is our senior editor for feature articles. He can handle a wide range of subjects and degrees of difficulty, and always produces a first-class editing job.		
■ Jeff is very thorough and effective at communicating with authors. He is careful to get the best possible article onto the editing desk and is diligent in following up with authors.		
■ Fine. Jeff is very good at getting good illustrations for articles.		
■ Fine.		
■ Fine.		
■ Jeff is very conscious of the schedule and tries hard to meet deadlines. He tends to resist requests for speeding up the editing process, claiming it would jeopardise quality. At times, it would be more useful to have him process more articles with less thoroughness. For 1991, Jeff edited 13 articles. Comparable article numbers for previous years were 15 1/2 (1989) and 16 (1990). * Jeff should strive to maintain the quantity as well as the quality of his work.		
		3.5
■ Jeff submits careful and competent reviews. He can produce these at short notice if asked, but is careful to point out that this will take him off editing work and hence cause delays. Left to his own devices, he tends to work continuously on editing and leaves reviews until he is reminded. This can cause problems if the editor needs a review in a hurry and has not communicated a deadline for it.		
■ Good. As in 1 above, he may need reminding.		

* In 1991 Jeff was asked to help with article solicitation more than in previous years. One article he edited was by two authors and was more time-consuming than most.

Major Responsibilities	Weight
3. Support the editorial effort of PT: A. Submit ideas to editor for feature articles and to staff reporters and/or editor for news stories. B. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc. C. Have discussions with other editors about editorial matters and help them with their editing. D. Read relevant periodicals and attend relevant meetings to keep abreast of developments in physics.	15%

Component Tasks	Comments	Rating
		2.0

- Considering his seniority and experience, Jeff could submit more ideas.

- Jeff will attend general staff meetings when asked, but is generally guarded with his comments and sometimes seems preoccupied with his own materials. In small meetings his contributions are usually precise and helpful.

- Jeff is sought out by a number of members of the staff for advice on editing and is helpful in consultations with his peers.

- Jeff receives a lot of wide range of periodicals in physics, science, business and education. However, he does not appear to translate many things he reads in periodicals into publishable ideas for articles and news items. He does not attend, nor ask to attend, a lot of meetings.

D00082

Overall Rating 4 -

PHYSICS TODAY "jspp93" January 31, 1994

PERFORMANCE PLAN 1993

PERIOD: February 1993-January 1994
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Associate Editor Reporting to: Ken McNaughton
Level II

Major Responsibility 1: Edit articles

Weight: 85%

Component tasks:

1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Major Responsibility 2: Take responsibity for assigned articles

Weight: 15%

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Major Responsibility 3: Support the editorial effort of PT

Weight: 5%

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
4. Read relevant periodicals and attend relevant meetings to keep abreast of devlepments in physics.

JEFF SCHMIDT "js94a" February 14, 1994

MANUSCRIPT REVIEWS -- FEB 93-JAN 94

AUTHOR	MS #	DATES REC'D	DATES RETURNED	COMMENTS
Slusher	6434			No records; pouch could not be located
Lagally	6453	4/5/93?	4/12/93	
Stone	6478			No records; pouch could not be located
Pake	6500	5/26/93	6/1/93	
Siegel	6576	6/1/93	6/7/93	
Fuller	6709			Re-aassigned to RL; no record of dates assigned to JS.
Garmire	9102	2/7/94	2/7/94	

PHYSICS TODAY "jspr94" February 15, 1994

PERFORMANCE REVIEW 1994

PERIOD: February 1993-January 1994
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Senior Associate Editor
Reporting to: Ken McNaughton

Overall Rating: 3

Major Responsibility 1: Edit articles

Weight: 80% Rating: 3.5 Weight x Rating: 280

Component tasks:

1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Comments: Jeff continues to do a thorough and professional job of editing feature articles. He edited 14 in this period (published Mar. 93 - Feb. 94), which included a disruptive relocation to College Park. Jeff is capable of editing 16 articles a year, which is an average of about 1.3 articles a month.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 3.0 Weight x Rating: 45

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Comments: Jeff took responsibility for the largest number of assigned articles handled by any of the PT staff, often around 13 at a time. In general he handled these in an efficient and productive manner. It would be helpful if he would get into the habit of bringing his list of assigned articles, or relevant pouches, when he is called to a meeting with the Editor and Managing Editor to discuss these responsibilities.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 2.0 Weight x Rating: 10

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.

Comments:
Jeff reviewed about seven articles in the period between 2/17/93 and 7/8/93 and has made a big improvement on his turnaround time. Jeff does not submit many ideas for feature articles and news stories.

Appraiser's comments: Jeff was asked to improve his rate of editing articles in February 1993 over the succeeding 6-month period, to return reviews of articles faster and to continue taking responsibility for assigned articles. He fulfilled the requirements and was promoted to senior associate editor effective 8/1/93. Jeff elected to relocate to Maryland and has settled in to the new situation. This has been a period of major dislocation for the staff and Jeff has been an important factor in continuing operations at PT. While his production of work has continued to be satisfactory, Jeff has chosen to ignore AIP's requirement that all ACP staff be present between the hours of 9 a.m. and 4 p.m. He arrives typically between 9 a.m. and 10:50 a.m. (see note re 31 January 1994). His justification seems to be that it shouldn't matter, providing he does enough work. If Jeff wants to campaign for different hours, it would be preferable that he accept the existing rules and work to change them, rather than setting a rebellious example to others on the staff.

PHYSICS TODAY "jspr94" February 15, 1994

PERFORMANCE REVIEW 1994

PERIOD: February 1993-January 1994
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Senior Associate Editor
Reporting to: Ken McNaughton

Overall Rating: 3

Major Responsibility 1: Edit articles

Weight: 80% Rating: 3.5 Weight x Rating: 280

Component tasks:

1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Comments: Jeff continues to do a thorough and professional job of editing feature articles. He edited 14 in this period (published Mar. 93 - Feb. 94), which included a disruptive relocation to College Park. Jeff is capable of editing 16 articles a year, which is an average of about 1.3 articles a month.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 3.0 Weight x Rating: 45

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Comments: Jeff took responsibility for the largest number of assigned articles handled by any of the PT staff, often around 13 at a time. In general he handled these in an efficient and productive manner. It would be helpful if he would get into the habit of bringing his list of assigned articles, or relevant pouches, when he is called to a meeting with the Editor and Managing Editor to discuss these responsibilities.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 2.0 Weight x Rating: 10

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.

Comments:
Jeff reviewed about seven articles in the period between 2/17/93 and 7/8/93 and has made a big improvement on his turnaround time. Jeff does not submit many ideas for feature articles and news stories.

Appraiser's comments: Jeff was asked to improve his rate of editing articles in February 1993 over the succeeding 6-month period, to return reviews of articles faster and to continue taking responsibility for assigned articles. He fulfilled the requirements and was promoted to senior associate editor effective 8/1/93. Jeff elected to relocate to Maryland and has settled in to the new situation. This has been a period of major dislocation for the staff and Jeff has been an important factor in continuing operations at PT. While his production of work has continued to be satisfactory, Jeff has chosen to ignore AIP's requirement that all ACP staff be present between the hours of 9 a.m. and 4 p.m. He arrives typically between 9 a.m. and 10:50 a.m. (see note re 31 January 1994). His justification seems to be that it shouldn't matter, providing he does enough work. If Jeff wants to campaign for different hours, it would be preferable that he accept the existing rules and work to change them, rather than setting a rebellious example to others on the staff.

AMERICAN INSTITUTE OF PHYSICS
EXEMPT PERFORMANCE PLAN AND APPRAISAL FORM

Employee Name: Jeff Schmidt

Division: Physics Today **Manager:** Gloria Lubkin

Job Title: Senior Associate Editor

Planning Date: _____ **Review Date(s):** _____

+=+

Instructions for Performance Appraisal: Review your completed planning form and notes to assess the effectiveness with which the employee carried out each responsibility. Select the numerical rating level (summarized below) that best suits actual performance for each major responsibility. All component tasks should be reviewed in order to determine how well a responsibility has been fulfilled.

5 *Consistently Exceeds Job Requirements - Performance is consistently exceptional; employee demonstrates unusually high level of accomplishment, and has mastered all essential elements of the component tasks in this responsibility.*

4 *Exceeds Job Requirements - Consistently performs full range of tasks in this responsibility in a manner far above satisfactory. Has full understanding of all aspects of this responsibility.*

3 *Meets Job Requirements - Performance is satisfactory. Employee accomplishes tasks and meets expectations. Improvement continues at the expected rate, and performance is what can be expected from a well-qualified individual. Employee requires a minimum amount of counsel, guidance, and supervision.*

2 *Partially Meets Job Requirements - Needs improvement to meet acceptable level of performance; may still require considerable supervision before performance is satisfactory. May be characterized by insufficient knowledge, ineffective planning, and/or unproductive resource management.*

1 *Does Not Meet Job Requirements - Has demonstrated only minimally acceptable level of performance. May be characterized by lack of knowledge, ambivalent judgement, negligent planning, and/or wasteful resource management.*

Enter a numerical rating for each major responsibility in the Rating column; your choices are 5, 4.5, 4, 3.5, 3, 2.5, 2, 1.5, and 1. Specific written comments must be provided for performance ratings of 5, 4.5, 2, 1.5, and 1, explaining why these high or low ratings were given. Also, if the employee's achievement in one responsibility differs substantially from the achievement in another, this should be discussed in the Appraiser's Comments section.

The numerical rating for each major responsibility times its assigned weight gives a numerical score; find the sum of scores for all major responsibilities, and convert this to a rated performance level (see the Managers' Performance Appraisal Worksheet). Enter the OVERALL RATING (not the total score) on the Performance Appraisal Form. Complete the comments portion of the appraisal form to document the employee's overall achievements and areas in need of improvement.

Major Responsibilities	*Weight*
1. Edit articles: A. Communicate with authors in person and by telephone, letter, fax and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes. B. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact. C. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions. D. Revise article in conjunction with copy editor, editor and author's corrections. E. Proofread galleys, help prepare page layouts, check bluelines. F. Perform these tasks in accordance with production schedule.	80%
2. Take responsibility for assigned feature articles, in consultation with the editor-in-chief: A. Get in touch with the author when the outline is due. B. Seek advice from a referee on the outline C. Give feedback to the author about the outline. D. Call the author when the manuscript is due. E. Evaluate the manuscript. F. Contact a referee.	15%
3. Support the editorial effort of PT: A. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces. B. Submit ideas for feature articles and news stories. C. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.	5%

Component Tasks	Comments	Rating
1. Jeff continues to do a thorough and professional job of editing feature articles. He edited 14 in this period (published Mar. 93 - Feb. 94), which included a disruptive relocation to College Park. Jeff is capable of editing 16 articles a year, which is an average of about 1.3 articles a month. This should be his goal for the next twelve months. Jeff should continue to help the magazine get back on schedule by continuing to meet his copy deadlines.		3.5
2. Jeff took responsibility for the largest number of assigned articles handled by any of the PT staff, often around 13 at a time. In general he handled these in an efficient and productive manner. It would be helpful if he would get into the habit of bringing his list of assigned articles, or relevant pouches, when he is called to a meeting with the Editor and Managing Editor to discuss these responsibilities.		3.0
3. Jeff reviewed about seven articles in the period between 2/17/93 and 7/8/93 and has made a big improvement on his turnaround time. One exception was a review of an article by Owen Gingerich which was assigned just before the relocation, on October 18, and was not returned until January 11. Although this may have got caught up in the move, Jeff should be careful not to let reviews "fall through the cracks." Jeff does not submit many ideas for feature articles and news stories.		2.0

Overall Rating 3

Appraiser's Comments *- Please comment on the employee's overall performance during this appraisal period, including demonstrated strengths and weaknesses. Areas needing improvement should be specified and observed during the next appraisal period.*

Jeff was asked to improve his rate of editing articles in February 1993 over the succeeding six-month period, to return reviews of articles faster and to continue taking responsibility for assigned articles. He fulfilled the requirements and was promoted to senior associate editor effective 8/1/93. Jeff elected to relocate to Maryland and has settled into the new situation. This has been a period of major dislocation for the staff and Jeff has been an important factor in continuing operations at PT. While his production of work has continued to be satisfactory under the circumstances, Jeff has chosen to ignore AIP's requirement that all ACP staff be present between the hours of 9 a.m. and 4 p.m. He arrives typically between 9 a.m. and 10:50 a.m. (see note re 31 January 1994). His justification seems to be that it shouldn't matter, providing he does enough work. Jeff claims that he stays late and works much longer hours than required. If Jeff wants to campaign for different hours, it would be preferable that he accept the existing rules and work to change them, rather than setting a rebellious example to others on the staff.

Employee's Comments *- Use this space, if desired, to comment on this review.*

SIGNATURES:

Employee: Read 18 Feb. 94 J. Schmidt *Date:* _____

Appraiser: D. Lubbin *Date:* 2/10/94 2/18

[Manager, Director or Officer]

Both the appraiser and employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review, but that he/she has seen the form and participated in the performance appraisal.

H.R. Review _____ *Date:* _____

AMERICAN INSTITUTE OF PHYSICS

Payroll Authorization Form - B - Personnel Committee Action Only

TO: PAYROLL DATE: 01/19/94

EMPLOYEE: **Jeffrey Schmidt** DIVISION: Physics Today
EMP NO.: (n/a)
OLD PAYROLL ACCOUNT: Phys Today NEW PAYROLL ACCT:

Salary Change: **Title Change:** **Transfer:**

REMARKS: exempt

SALARY CHANGE INFORMATION

Position Title	Grade	Current Range	Effective	Next Review
Sr Assoc Editor	EY08	$45800-$59100-$72500	03/01/94	03/01/95

Previous Salary	Amount of Increase	New Salary	Percent Increase
$54300.00	2600	56900	4.79

Quartile: 2 Overall Rating: 3

G. Lubkin
Recommending Party _____ Authorized Approval _____ Personnel

TITLE CHANGE INFORMATION

From: Sr Assoc Editor To: Effective:

New Grade: New Range:

Division Head _____ Personnel _____

TRANSFER (Division or Charges) **INFORMATION**

From: Physics Today To:

Effective Date:

Division Head _____ Division Head _____ Personnel _____

MISCELLANEOUS REMARKS:
exempt

Rev. 07/90

D00065

PHYSICS TODAY 18 February 1994

PERFORMANCE PLAN 1994

PERIOD: February 1994-January 1995
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Senior Associate Editor Reporting to: Ken McNaughton

Major Responsibility 1: Edit articles

Weight: 80%

Component tasks:

1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Major Responsibility 2: Take responsibity for assigned articles

Weight: 15%

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Major Responsibility 3: Support the editorial effort of PT

Weight: 5%

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
4. Read relevant periodicals and attend relevant meetings to keep abreast of devlepments in physics.

AMERICAN INSTITUTE OF PHYSICS
EXEMPT PERFORMANCE PLAN AND APPRAISAL FORM

Employee Name: Jeff Schmidt

Division: Physics Today **Manager:** Gloria Lubkin

Job Title: Senior Associate Editor

Planning Date: _____ **Review Date(s):** _____

+=+=+=

Component Tasks	Comments	Rating
1.	Jeff continues to do a thorough and professional job of editing feature articles. He edited 14 in this period (published Mar. 93 - Feb. 94), which included a disruptive relocation to College Park. Jeff is capable of editing 16 articles a year, which is an average of about 1.3 articles a month. This should be his goal for the next twelve months. Jeff should continue to help the magazine get back on schedule by continuing to meet his copy deadlines.	3.5
2.	Jeff took responsibility for the largest number of assigned articles handled by any of the PT staff, often around 13 at a time. In general he handled these in an efficient and productive manner. It would be helpful if he would get into the habit of bringing his list of assigned articles, or relevant pouches, when he is called to a meeting with the Editor and Managing Editor to discuss these responsibilities.	3.0
3.	Jeff reviewed about seven articles in the period between 2/17/93 and 7/8/93 and has made a big improvement on his turnaround time. One exception was a review of an article by Owen Gingerich which was assigned just before the relocation, on October 18, and was not returned until January 11. Although this may have got caught up in the move, Jeff should be careful not to let reviews "fall through the cracks." Jeff does not submit many ideas for feature articles and news stories.	2.0

Overall Rating 3

Major Responsibilities	*Weight*
1. Edit articles: A. Communicate with authors in person and by telephone, letter, fax and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes. B. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact. C. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions. D. Revise article in conjunction with copy editor, editor and author's corrections. E. Proofread galleys, help prepare page layouts, check bluelines. F. Perform these tasks in accordance with production schedule.	80%
2. Take responsibility for assigned feature articles, in consultation with the editor-in-chief: A. Get in touch with the author when the outline is due. B. Seek advice from a referee on the outline C. Give feedback to the author about the outline. D. Call the author when the manuscript is due. E. Evaluate the manuscript. F. Contact a referee.	15%
3. Support the editorial effort of PT: A. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces. B. Submit ideas for feature articles and news stories. C. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.	5%

Appraiser's Comments - Please comment on the employee's overall performance during this appraisal period, including demonstrated strengths and weaknesses. Areas needing improvement should be specified and observed during the next appraisal period.

Jeff was asked to improve his rate of editing articles in February 1993 over the succeeding six-month period, to return reviews of articles faster and to continue taking responsibility for assigned articles. He fulfilled the requirements and was promoted to senior associate editor effective 8/1/93. Jeff elected to relocate to Maryland and has settled into the new situation. This has been a period of major dislocation for the staff and Jeff has been an important factor in continuing operations at PT. While his production of work has continued to be satisfactory under the circumstances, Jeff has chosen to ignore AIP's requirement that all ACP staff be present between the hours of 9 a.m. and 4 p.m. He arrives typically between 9 a.m. and 10:50 a.m. (see note re 31 January 1994). His justification seems to be that it shouldn't matter, providing he does enough work. Jeff claims that he stays late and works much longer hours than required. If Jeff wants to campaign for different hours, it would be preferable that he accept the existing rules and work to change them, rather than setting a rebellious example to others on the staff.

Employee's Comments - Use this space, if desired, to comment on this review.

SIGNATURES:

Employee: Read 18 Feb 94 J. Schmidt *Date:* _____

Appraiser: C. Lubbin *Date:* 2/10/94 2/18

[Manager, Director or Officer]

Both the appraiser and employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review, but that he/she has seen the form and participated in the performance appraisal.

H.R. Review _____ *Date:* _____

PHYSICS TODAY 18 February 1994

PERFORMANCE PLAN 1994

PERIOD: February 1994-January 1995
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Gloria Lubkin
Job Title: Senior Associate Editor Reporting to: Ken McNaughton

Major Responsibility 1: Edit articles

Weight: 80%

Component tasks:

1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Major Responsibility 2: Take responsibity for assigned articles

Weight: 15%

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Major Responsibility 3: Support the editorial effort of PT

Weight: 5%

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
4. Read relevant periodicals and attend relevant meetings to keep abreast of devlepments in physics.

PHYSICS TODAY January 27, 1995

JOB DESCRIPTION

Initials: JS
Job title: Editor
Branch/Division: Physics Programs/*Physics Today*
Reports to: Editor

BRIEF DESCRIPTION OF JOB DUTIES:

Take responsibility for assigned articles, dealing with authors and reviewers; edit the articles

ESSENTIAL FUNCTIONS:

1. Edit feature articles in conjunction with authors; negotiate for artwork; monitor articles through production

2. Take responsibility for assigned articles; this includes reviewing the article, obtaining an outside review and conveying recommended revisions to the author

3. Review feature articles and letters to the editor

4. Provide editorial support through staff discussions, reading and traveling to keep abreast of the field and offering suggestions for articles and stories.

QUALIFICATIONS:

Graduate level training in physics or other physical science; several years' experience in editing or writing for a scientific or technical magazine

ARTICLES EDITED BY JEFF SCHMIDT

January 27, 1995

	1996/1997	1995/1996	1994/1995
March			Bertulani
April			--
May			Garmire
June			Intro (1/2) Park
July			--
August			Pais
September			Ahrens --
October			Marrs
November			Wolf Kiehl
December			Intro (1/2) --
January			Ehrenreich
February			Seitz --
TOTAL			11

D00031

	1993/1994	1992/1993	1991/1992	1990/1991
March	Zabusky Dawson	--	Gilman	Salby Lankford
April	--	Holonyak Pake	Gillette Kellerman	--
May	Tsong	--	--	Fleming Zewail
June	Mendez Slusher	Wehrli	Schrieffer Jorgensen	--
July	Levenson	Allen	--	Miner
August	Peterson	Attwood	Stodolsky Upton	Drell/Okun Fainberg
September	Stone	Munk Hogan	Swartz	Bethe
October	Pake Siegel	Falicov Esaki	--	Rugar (Hansma)
November	Lagally	--	Huffman Donnelly	Tressel Forum
December	--	Robertson	Baker Starkweather	Berry
January	Desurvire	Pobell	Callen	Scher
February	Bastian Hudspeth	--	Tremaine	--
TOTAL	14	12	13	13

D00032

ARTICLES EDITED BY JEFF SCHMIDT

January 27, 1995

PERIOD	1989/1990	1988/89	1987/88	1986/87
March	Mulligan	Passel	Damask	Clarke Maple
April	Nero	Agarwal	Donnelly Nagle	--
May	--	Sagdeev Axford	Swensen Moyer	Greene Oppenheim
June	Karle Okun	Agarwal Weart	Wineland	McDermott
July	Birgenwau Wolfenstein	Barschall	Alvarez	Babcock
August	Neuschatz	Goldberg	Evernden	Quate Bertsch
September	Tani	Josephson	Burrows	Alfven Johnson
October	Lounasmaa	Seidel Feinberg	Winkler	Ghate Eastman
November	Hauptman	Brown	Can/Pat	Reif Irvine
December	Pais	Wong Lee	Hayashi Kanamura	Bak Perl
January	--	Kleppner	Lewis	Bauer
February	Smith Levi	Goodstein	Evans	Maris Schartz
TOTAL	13	16	15	19

D00033

GBL 2/14

PHYSICS TODAY 13 February 1995

PERFORMANCE REVIEW 1995

PERIOD: February 1994-January 1995
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Charles Harris
Job Title: Editor
Reporting to: Editor of Physics Today

OVERALL RATING: 2.5

Major Responsibility 1: Edit articles
Weight: 80% Rating: 2.5 Score: 200
Component tasks:
1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Comments: Jeff is very good at taking technical articles and making them readable. He does a thorough editing job and his articles don't usually need much extra work to get them into publishable form, either in the text or the illustrations.

However, in this period, his productivity has been poor. Between February 1995 and January 1995, Jeff edited ten feature articles and two two-page introductory pieces -- way below his capacity. Because the March 1994 issue closed March 11 and the March 1995 issue closed February 10, Jeff was actually asked to work on 13 issues in this twelve month review period. If we consider (generously) the two introductory articles combined to be equivalent to one regular article, Jeff's productivity amounts to 0.85 articles per issue, or 0.9 articles per calendar month. There were no significant disruptions to office routine comparable to the move of the previous year.

In Jeff's performance review of 2/94, it was noted that he edited 14 feature articles (published Mar. 93 - Feb. 94), and his production of work was considered "satisfactory under the circumstances." However, this period included a disruptive relocation to College Park, and the review noted that "Jeff is capable of editing 16 articles a year, an average of about 1.3 articles a month. This should be his goal for the next twelve months."

Jeff has failed to meet this goal. He tends to isolate

himself from the mainstream of day to day life at PT, by arriving late, eating lunch late, and working at home on Wednesdays. When approached about editing articles, he is often pessimistic with projections of his capabilities and he resists taking on projects. He rarely if ever volunteers for any extra work. These attitudes tend to deflect attention from him. If Jeff took more of the load of editing feature articles, we could release some editors to write more Search stories, one of our important goals. We are attempting to publish feature articles of 4,000 words instead of 5,000 words as we did in the past.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: ~~3.5~~ 3.0 Score: 52.5

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Comments: Jeff carries the heaviest load of assigned articles and is usually thorough, perceptive and reasonably prompt.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 3 Score: 15

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
4. Read relevant periodicals and attend relevant meetings to keep abreast of developments in physics.

Comments: Jeff's reviews are usually insightful, intellectually critical and reasonably prompt. The computer log shows that Jeff reviewed nine feature articles and twenty six letters in this period. Jeff is not a big source of ideas for news stories and feature articles, but he often makes interesting comments in meetings that are well thought out and sometimes these turn out to be ideas that no one else has articulated.

How prompt were his reviews? Has he met his deadline for edit- ing?

Appraisers Comments:

Jeff is a very capable editor and does an excellent job of editing feature articles and a good job of handling the other duties described here. His productivity on his main function of editing feature articles is below standard and we expect to see some improvement in the next twelve months. Jeff should aim to edit a minimum of 15 articles published April 1995 to March 1996. This will require

speed, efficiency and a willingness to get involved in the needs of the magazine. Effective immediately, his privilege of working at home on Wednesdays is canceled until further notice since he has not demonstrated, as he claimed, that he can be more productive by so doing. With an overall rating of 2.5, Jeff's performance will be reviewed again in six months. To demonstrate the productivity that is expected of him, he should have edited seven articles in the five issues (April through August 1995) that will be considered at that time.

PHYSICS TODAY 15 February 1995

PERFORMANCE REVIEW 1995

PERIOD: February 1994-January 1995
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Charles Harris
Job Title: Editor
Reporting to: The Editor of Physics Today

OVERALL RATING: 3.0

Major Responsibility 1: Edit articles

Weight: 80% Rating: 3.0 Score: 240

Component tasks:

1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Comments: Jeff is very good at taking technical articles and making them readable. He does a thorough editing job and his articles don't usually need much extra work to get them into publishable form, either in the text or the illustrations. Between February 1994 and January 1995, Jeff edited ten feature articles and two two-page introductory pieces. Because the March 1994 issue closed March 11 and the March 1995 issue closed February 10, Jeff was actually asked to work on 13 issues in this twelve month review period. If we consider the two introductory articles combined to be equivalent to one regular article, Jeff's productivity amounts to 0.85 articles per issue, or 0.9 articles per calendar month.

In Jeff's performance review of 2/94, it was noted that he edited 14 feature articles (published Mar. 93 - Feb. 94), and his production of work was considered "satisfactory under the circumstances." This period included a disruptive relocation to College Park. The review noted that "Jeff is capable of editing 16 articles a year, an average of about 1.3 articles a month. This should be his goal for the next twelve months."

Jeff did not meet this goal in 1994.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 3.5 Score: 52.5

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Comments: Jeff carries the heaviest load of assigned articles and is usually thorough, perceptive and reasonably prompt.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 3 Score: 15

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
4. Read relevant periodicals and attend relevant meetings to keep abreast of developments in physics.

Comments: Jeff's reviews are usually insightful, intellectually critical and reasonably prompt. The computer log shows that Jeff reviewed nine feature articles and twenty six letters in this period. Jeff is not a big source of ideas for news stories and feature articles, but he often makes interesting comments in meetings that are well thought out and sometimes these turn out to be ideas that no one else has articulated.

Appraisers Comments:

Jeff is a very capable editor and does an excellent job of editing feature articles and a good job of handling the other duties described above. His productivity on his main function of editing feature articles is below capacity. With the magazine's call for more but shorter articles, Jeff must aim to edit a minimum of 16 articles published April 1995 to March 1996.

Employee's Comments:.....
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SIGNATURES:

Employee:...J. Schmitt.....Date:..16 Feb 95.....

Appraiser:...Steve Benka.....Date:..2/16/95.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

PHYSICS TODAY 15 February 1995

PERFORMANCE REVIEW 1995

PERIOD: February 1994-January 1995
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Charles Harris
Job Title: Editor
Reporting to: The Editor of Physics Today

OVERALL RATING: 3.0

Major Responsibility 1: Edit articles
Weight: 80% Rating: 3.0 Score: 240
Component tasks:
1. Communicate with authors in person and by telephone, letter, fax, telephone and e-mail to revise and clarify articles, including satisfying referees' comments, and also to obtain approval of authors about editing changes.
2. Edit articles for content, clarity, organization, length, readability, house style, grammar, spelling and impact.
3. Negotiate with author for tables, charts, graphs, diagrams, photographs, including possible cover art. Select art, write and edit captions.
4. Revise article in conjunction with copy editor, editor and author's corrections.
5. Proofread galleys, help prepare page layouts, check bluelines.
6. Perform these tasks in accordance with production schedule.

Comments: Jeff is very good at taking technical articles and making them readable. He does a thorough editing job and his articles don't usually need much extra work to get them into publishable form, either in the text or the illustrations. Between February 1994 and January 1995, Jeff edited ten feature articles and two two-page introductory pieces. Because the March 1994 issue closed March 11 and the March 1995 issue closed February 10, Jeff was actually asked to work on 13 issues in this twelve month review period. If we consider the two introductory articles combined to be equivalent to one regular article, Jeff's productivity amounts to 0.85 articles per issue, or 0.9 articles per calendar month.

In Jeff's performance review of 2/94, it was noted that he edited 14 feature articles (published Mar. 93 - Feb. 94), and his production of work was considered "satisfactory under the circumstances." This period included a disruptive relocation to College Park. The review noted that "Jeff is capable of editing 16 articles a year, an average of about 1.3 articles a month. This should be his goal for the next twelve months."

Jeff did not meet this goal in 1994.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 3.5 Score: 52.5

Component tasks:

With regard to assigned feature articles, and in consultation with the editor-in-chief:

1. Get in touch with the author when the outline is due.
2. Seek advice from a referee on the outline
3. Give feedback to the author about the outline.
4. Call the author when the manuscript is due.
5. Evaluate the manuscript
6. Contact a referee

Comments: Jeff carries the heaviest load of assigned articles and is usually thorough, perceptive and reasonably prompt.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 3 Score: 15

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
4. Read relevant periodicals and attend relevant meetings to keep abreast of developments in physics.

Comments: Jeff's reviews are usually insightful, intellectually critical and reasonably prompt. The computer log shows that Jeff reviewed nine feature articles and twenty six letters in this period. Jeff is not a big source of ideas for news stories and feature articles, but he often makes interesting comments in meetings that are well thought out and sometimes these turn out to be ideas that no one else has articulated.

Appraisers Comments:

Jeff is a very capable editor and does an excellent job of editing feature articles and a good job of handling the other duties described above. His productivity on his main function of editing feature articles is below capacity. With the magazine's call for more but shorter articles, Jeff must aim to edit a minimum of 16 articles published April 1995 to March 1996.

Employee's Comments:.....
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SIGNATURES:

Employee:...J. Schmitt.....Date:.16 Feb 95.....

Appraiser:...Steve Benka.....Date:.2/16/95.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

PHYSICS TODAY February 12, 1996

PERFORMANCE REVIEW 1996

PERIOD: February 1993-January 1994
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Steve Benka
Job Title: Senior Associate Editor
Reporting to: Steve Benka

Overall Rating: 3

Major Responsibility 1: Edit articles

Weight: 80% Rating: 3.5 Rating: 280

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff does a thorough and professional job of editing feature articles. He edited 16 in this period (published Mar. 94 - Feb. 95), including one that was very difficult (Platzman) and four assigned to him for quick production (Spano, Goldberg, Martin, and Gruner). His articles are generally ready on time and often they are early. The editor appreciates this.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 2.5 Rating: 37.5

Component tasks:
In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did not do too well with the early stages of assigned articles. He has expressed a preference for articles that are ready to edit, and the editor has tried to provide them. Even so, Jeff needs to get involved much earlier when he is asked to. Articles-in-the-making often languish in his office, until he is explicitly asked to move them forward. Jeff needs to take more responsibility in this area.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 3.0 Rating: 15

Component tasks:

1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.

Comments:
Jeff's reviews are often insightful and useful, and are often, but not always, prompt. He is still not a great source of ideas for articles and news stories, but his comments in meetings often provide a useful counterpoint to discussions.

Appraiser's comments: Jeff was asked to improve his rate of editing articles to 16 in 1995, and he did. He continues to be an excellent editor. His comments and views on editorial ideas and policies, while sometimes contrarian, are generally insightful.

Jeff needs to become involved earlier in the process of acquiring articles and their first revisions.

OVERALL RATING: 3.0 **OVERALL SCORE: 332.5**

Employee's Comments:.....
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SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Date:.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

PHYSICS TODAY "work.95" February 12, 1996

ARTICLES EDITED BY JEFF SCHMIDT

MONTH	ARTICLE	DIFFICULTY	ON TIME? (close)
March 1995	Yodh & Chance	Moderate	2/10 (2/9)
		(Search was also late)	
April 1995	Simonds	Easy/Moderate	3/6 (3/10)
	Prinz	Easy/Moderate	3/9 (3/10)
May 1995	Ott & Spano	Moderate	4/11 (4/11)
		(tranferred from RL)	
June 1995	Aharoni	Moderate	5/8 (5/11)
July 1995	Donnely	Easy	6/5 (6/12)
August 1995	Goldberg	Easy	7/11 (7/11)
	(A very late addition, high pressure)		
September 1995	Wolfe	Moderate/Difficult	8/7 (8/11)
	Richter	Easy	8/7 (8/11)
		(jointly with RL)	
October 1995	Martin & Glahow	Easy/Moderate	9/8 (9/11)
November 1995	Hendrickson	Moderate/Difficult	10/12 (10/11)
	Helfand	Easy/Moderate	10/11 (10/11)
December 1995	Gruner *et al.*	Easy/Moderate	11/3 (11/8)
	Bustamante	Moderate/Difficult	11/3 (11/8)
January 1996	Lankford & Slavings	Moderate	11/28 (12/8)
February 1996	Isaacs & Platzman	Difficult	1/11,16 (1/10)
		(Blizzard interference)	

Notes: Several of Jeff's articles were delayed in pages due to slow review by editor or managing editor.

The Feb. '96 article was resent on 1/16.

Jeff produced several articles quickly, on short notice, at the request of the editor. These include Ott & Spano, Goldberg, Martin & Glashow, and Gruner *et al.*

Isaacs & Platzman (Feb. '96) was truly difficult to edit and produce. All things considered, Jeff did a very good job with it.

We asked Jeff for 16 articles, and we got 16. A lot of preliminary work (including obtaing revisions and\or some editing) had been done on four of them: Ott & Spano, and Richter (by RL); Wolfe, and Gruner (by SB).

PHYSICS TODAY Proposed February 12, 1996

PERFORMANCE REVIEW 1996

PERIOD: February 1993-January 1994
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Steve Benka
Job Title: Senior Associate Editor
Reporting to: Steve Benka

Overall Rating: 3

Major Responsibility 1: Edit articles

Weight: 80% Rating: 3.5 Rating: 280

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff does a thorough and professional job of editing feature articles. He edited 16 in this period (published Mar. 94 - Feb. 95), including one that was very difficult (Platzman) and four assigned to him for quick production (Spano, Goldberg, Martin, and Gruner). His articles are generally ready on time and often they are early. The editor appreciates this.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 2.5 Rating: 37.5

Component tasks:
In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did not do too well with the early stages of assigned articles. He has expressed a preference for articles that are ready to edit, and the editor has tried to provide them. Even so, Jeff needs to get involved much earlier when he is asked to. Articles-in-the-making often languish in his office, until he is explicitly asked to move them forward. Jeff needs to take more responsibility in this area.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 3.0 Rating: 15
Component tasks:
1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.

Comments:
Jeff's reviews are often insightful and useful, and are often, but not always, prompt. He is still not a great source of ideas for articles and news stories, but his comments in meetings often provide a useful counterpoint to discussions.

Appraiser's comments: Jeff was asked to improve his rate of editing articles to 16 in 1995, and he did. He continues to be an excellent editor. His comments and views on editorial ideas and policies, while sometimes contrarian, are generally insightful.

Jeff needs to become involved earlier in the process of acquiring articles and their first revisions.

OVERALL RATING: 3.0 **OVERALL SCORE:** 332.5

Employee's Comments:.....
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SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Date:.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

PHYSICS TODAY February 12, 1996

PERFORMANCE REVIEW 1996

PERIOD: February 1993-January 1994
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Steve Benka
Job Title: Senior Associate Editor
Reporting to: Steve Benka

Overall Rating: 3

Major Responsibility 1: Edit articles

Weight: 80% Rating: ~~3.5~~ 4.0 Rating: ~~280~~ 320

45
15
380

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff does a thorough and professional job of editing feature articles. He edited 16 in this period (published Mar. 94 - Feb. 95), including one that was very difficult (Platzman) and four assigned to him for quick production (Spano, Goldberg, Martin, and Gruner). His articles are generally ready on time and often they are early. The editor appreciates this.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: ~~2.5~~ 3.0 Rating: ~~37.5~~

Component tasks:
In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did not do too well with the early stages of assigned articles. He has expressed a preference for articles that are ready to edit, and the editor has tried to provide them. Even so, Jeff needs to get involved much earlier when he is asked to. Articles-in-the-making often languish in his office, until he is explicitly asked to move them forward. Jeff needs to take more responsibility in this area.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 3.0 Rating: 15
Component tasks:
1. Read submitted manuscripts at request of the editor and submit a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Submit ideas for feature articles and news stories.
3. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.

Comments:
Jeff's reviews are often insightful and useful, and are often, but not always, prompt. He is ~~still~~ not a great source of ideas for articles and news stories, but his comments in meetings often provide a useful counterpoint to discussions.

expected to be

Appraiser's comments: Jeff was asked to improve his rate of editing articles to 16 in 1995, and he did. He continues to be an excellent editor. His comments and views on editorial ideas and policies, while sometimes contrarian, are generally insightful.

Jeff needs to become involved earlier in the process of acquiring articles and their first revisions.

OVERALL RATING: ~~3.0~~ 4.0 **OVERALL SCORE:** ~~332.5~~

Employee's Comments:.....
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SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Date:.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

PHYSICS TODAY "work.95" February 12, 1996

ARTICLES EDITED BY JEFF SCHMIDT

MONTH	ARTICLE	DIFFICULTY	ON TIME? (close)
March 1995	Yodh & Chance	Moderate	2/10 (2/9)
		(Search was also late)	
April 1995	Simonds	Easy/Moderate	3/6 (3/10)
	Prinz	Easy/Moderate	3/9 (3/10)
May 1995	Ott & Spano	Moderate	4/11 (4/11)
		(tranferred from RL)	
June 1995	Aharoni	Moderate	5/8 (5/11)
July 1995	Donnely	Easy	6/5 (6/12)
August 1995	Goldberg	Easy	7/11 (7/11)
		(A very late addition, high pressure)	
September 1995	Wolfe	Moderate/Difficult	8/7 (8/11)
	Richter	Easy	8/7 (8/11)
		(jointly with RL)	
October 1995	Martin & Glahow	Easy/Moderate	9/8 (9/11)
November 1995	Hendrickson	Moderate/Difficult	10/12 (10/11)
	Helfand	Easy/Moderate	10/11 (10/11)
December 1995	Gruner *et al.*	Easy/Moderate	11/3 (11/8)
	Bustamante	Moderate/Difficult	11/3 (11/8)
January 1996	Lankford & Slavings	Moderate	11/28 (12/8)
February 1996	Isaacs & Platzman	Difficult	1/11,16 (1/10)
		(Blizzard interference)	

Notes: Several of Jeff's articles were delayed in pages due to slow review by editor or managing editor.

The Feb. '96 article was resent on 1/16.

Jeff produced several articles quickly, on short notice, at the request of the editor. These include Ott & Spano, Goldberg, Martin & Glashow, and Gruner *et al*.

Isaacs & Platzman (Feb. '96) was truly difficult to edit and produce. All things considered, Jeff did a very good job with it.

We asked Jeff for 16 articles, and we got 16. A lot of preliminary work (including obtaing revisions and\or some editing) had been done on four of them: Ott & Spano, and Richter (by RL); Wolfe, and Gruner (by SB).

Manuscript N	Author ID (Last Nam	Type	Date Assigned	Published D	Expr1005	Reviewer1
6789	Lankford	A		1/1/96		JS
5295	Adomian	A	7/26/85		7/26/85	JS
3056	Needell	A	3/3/89		3/3/89	JS
4900	Gabriel	A	10/15/90		10/15/90	JS
5603	Weiss	A	6/7/91		6/7/91	JS
5703	Diehl	A	9/5/91		9/5/91	JS
9112	Donnelly	A	11/14/91		11/14/91	JS
5995	Socolow	A	4/9/92		4/9/92	JS
6757	Gingerich	A	10/18/93	12/1/94	10/18/93	JS
9249	Ahrens	A	4/1/94	8/1/94	4/1/94	JS
9248	Sharma	A	4/11/94		4/11/94	JS
9251	Seitz	A	4/18/94	1/1/95	4/18/94	JS
9250	Ehrenreich	A	4/18/94	1/1/95	4/18/94	JS
9283	Riordan	A	5/3/94		5/3/94	JS
9282	Pais	A	5/4/94	8/1/94	5/4/94	JS
9339	Platzman	A	6/10/94	2/1/96	6/10/94	JS
9458	Bankoff	A	9/19/94		9/19/94	JS
9611	Mulligan	A	1/30/95		1/30/95	JS
9527	Waag	A	2/23/95		2/23/95	JS
9719	Andrianov	A	5/22/95		5/22/95	JS
9692	Hendrickson	A	5/25/95	11/1/95	5/25/95	JS
9744	Martin	A	6/15/95	10/1/95	6/15/95	JS
9739	Gruner	A	7/25/95	12/1/95	7/25/95	JS
9821	Als-Nielsen	A	8/17/95	11/1/95	8/17/95	JS
9811	Soulen	A	8/17/95		8/17/95	JS
9812	Mealey	A	8/17/95		8/17/95	JS
9685	Ebbesen	A	1/23/96		1/23/96	JS

8 ~~letters~~ articles reviewed

D00262

Manuscript N	Author ID (Last Nam	Type	Date Assigned	Published D	Expr1005	Reviewer1
5443	Prasanna	L	2/28/91		2/28/91	JS
6744	Reppert	L	10/5/93	9/1/94	10/5/93	JS
6753	Meinel	L	10/15/93	9/1/94	10/15/93	JS
6760	Sommer	L	10/25/93		10/25/93	JS
6767	Gilman	L	10/25/93	9/1/94	10/25/93	JS
9201	Tobias	L	3/15/94	2/1/95	3/15/94	JS
9217	Sherwood	L	3/15/94		3/15/94	JS
9274	Ballentine	L	4/29/94		4/29/94	JS
9279	Martinez	L	4/29/94		4/29/94	JS
9273	Enciso	L	4/29/94	2/1/95	4/29/94	JS
9270	Levy	L	4/29/94		4/29/94	JS
9265	Weitenbeck	L	4/29/94		4/29/94	JS
9294	Mazzola	L	5/9/94	2/1/95	5/9/94	JS
9287	McCall	L	5/9/94		5/9/94	JS
9323	Reid	L	6/1/94		6/1/94	JS
9331	Watson	L	6/1/94		6/1/94	JS
9391	Chrisman	L	7/26/94		7/26/94	JS
9400	Lewandowski	L	7/26/94		7/26/94	JS
9450	Wolfe	L	9/12/94	4/1/95	9/12/94	JS
9448	Villchur	L	9/12/94	4/1/95	9/12/94	JS
9442	Stewart	L	9/12/94		9/12/94	JS
9467	Cranberg	L	10/3/94		10/3/94	JS
9464	Scarborough	L	10/3/94		10/3/94	JS
9497	Hitchens	L	10/25/94	6/1/95	10/25/94	JS
9517	Rao	L	11/11/94		11/11/94	JS
9551	Luhmann	L	12/2/94	6/1/95	12/2/94	JS
9580	Eberhard	L	1/5/95	8/1/95	1/5/95	JS
9620	Brasunas	L	1/30/95	5/1/95	1/30/95	JS
9622	Apgar	L	1/30/95	5/1/95	1/30/95	JS
9630	Schmidt	L	1/30/95		1/30/95	JS
9688	Stanley	L	4/14/95	11/1/95	4/14/95	JS
9731	Torrey	L	6/5/95	9/1/95	6/5/95	JS
9751	Holt	L	6/15/95		6/15/95	JS
9770	Laxmanan	L	7/13/95		7/13/95	JS
9762	Dovichi	L	7/13/95		7/13/95	JS
9780	Gerritsen	L	7/27/95	11/1/95	7/27/95	JS
9798	Kacser	L	8/17/95	12/1/95	8/17/95	JS
9914	Chubb	L	12/14/95		12/14/95	JS
9916	Onellion	L	12/14/95		12/14/95	JS
9926	Marque	L	1/19/96		1/19/96	JS
9919	Forinash	L	1/19/96		1/19/96	JS
9920	Ginsparg	L	1/19/96		1/19/96	JS

13
12 letters received

D00263

Manuscript N	Author ID (Last Nam	Type	Date Assigned	Published D	Expr1005	Editor
9614	Rishbeth	L		6/1/95		JS

D00264

Manuscript N	Author ID (Last Nam	Type	Editor	Date Assigned	Published D	Expr1006
9366	Guckel	A	JS			
6789	Lankford	A	JS		1/1/96	
9365	Bohren	A	JS			
~~9368~~	~~Kiehl~~	~~A~~	~~JS~~		~~11/1/94~~	
9526	Baughman	A	JS			
9530	Song	A	JS			
9536	Simonds	A	JS		4/1/95	
6504	Grodzins	A	JS			
9686	Nordtvedt	A	JS			
9752	Goldberg	A	JS		8/1/95	
9724	Helfand	A	JS		11/1/95	
9537	Prinz	A	JS		4/1/95	
~~5435~~	~~Lewis~~	~~A~~	~~JS~~	~~5/22/91~~		~~5/22/91~~
~~9112~~	~~Donnelly~~	~~A~~	~~JS~~	~~11/14/91~~		~~11/14/91~~
5809	Donnelly	A	JS	3/20/92	7/1/95	3/20/92
6303	Wolfe	A	JS	4/23/93	9/1/95	4/23/93
~~6795~~	~~Park~~	~~A~~	~~JS~~	~~2/8/94~~	~~6/1/94~~	~~2/8/94~~
~~9249~~	~~Ahrens~~	~~A~~	~~JS~~	~~4/1/94~~	~~8/1/94~~	~~4/1/94~~
~~9281~~	~~Wolf~~	~~A~~	~~JS~~	~~4/15/94~~	~~10/1/94~~	~~4/15/94~~
~~9250~~	~~Ehrenreich~~	~~A~~	~~JS~~	~~4/18/94~~	~~1/1/95~~	~~4/18/94~~
~~9282~~	~~Pais~~	~~A~~	~~JS~~	~~5/4/94~~	~~8/1/94~~	~~5/4/94~~
9339	Platzman	A	JS	6/10/94	2/1/96	6/10/94
9385	Ott	A	JS	7/18/94	5/1/95	7/18/94
9354	Chance	A	JS	9/22/94	3/1/95	9/22/94
9410	Frank	A	JS	1/9/95		1/9/95
9527	Waag	A	JS	2/23/95		2/23/95
9692	Hendrickson	A	JS	5/25/95	11/1/95	5/25/95
9811	Soulen	A	JS	8/17/95		8/17/95

D00265

AMERICAN INSTITUTE of PHYSICS

A I P INTER-OFFICE MEMORANDUM

TO: Steve Benka - Physics Today

FROM: Human Resources

SUBJECT: Personnel Committee Meeting

DATE: March 4, 1996

NAME	DIVISION	TITLE		SALARY		NEXT REVIEW
		CURRENT	NEW	CURRENT	NEW	DATE
Jeffrey Schmidt	Physics Today	Sr Assoc Editor		$59,400	Deferred	3/1/96
Irwin Goodwin	Physics Today	Senior Editor		$77,000	$78,600	3/1/97

March 15, 1996 is the deadline for reviews at the next Personnel Committee Meeting.

cc: J. Rigden

PHYSICS TODAY March 12, 1996

PERFORMANCE REVIEW 1996

PERIOD: February 1995-January 1996
Employee Name: Jeff Schmidt
Division: Physics Today Manager: Steve Benka
Job Title: Senior Associate Editor
Reporting to: Steve Benka

Overall Rating: 4

Major Responsibility 1: Edit articles

Weight: 80% Rating: 4.0 Rating: 320

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff does a thorough and professional job of editing feature articles. He edited 16 in this period (published Mar. 95 - Feb. 96), including one that was very difficult (Platzman) and four assigned to him for quick production (Spano, Goldberg, Martin, and Gruner). His articles are generally ready on time and often they are early. The editor appreciates this.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 3.0 Rating: 45

Component tasks:
In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff has expressed a preference for articles that are ready to edit, and the editor has tried to provide them. Even so, Jeff needs to get involved much earlier when he is asked to. Articles-in-the-making sometimes languish in his office, until he is explicitly asked to move them forward. Jeff needs to take more responsibility in this area.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 3.0 Rating: 15
Component tasks:
1. Read submitted manuscripts at request of the editor and provide a review with regard to the suitability of the manuscript for publication. These manuscripts include feature articles, letters to the editor and opinion pieces.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Submit ideas for feature articles and news stories.

Comments:
Jeff's reviews are often insightful and useful, and are often, but not always, prompt. His comments in meetings often provide a useful counterpoint to discussions. He is not expected to be a great source of ideas for articles and news stories, but occasionally has ideas with merit.

Appraiser's comments: Jeff rose to the challenge of editing 16 articles in 1995. He continues to be an excellent editor, and handles even the difficult assignments well. His comments and views on editorial ideas and policies, while sometimes contrarian, are generally insightful.

Jeff needs to become involved earlier in the process of acquiring articles and their first revisions. He also needs to communicate accurately and completely with editorial management on matters relevant to the magazine and its production.

The salary adjustment is retroactive to February 1, 1996.

OVERALL RATING: 4.0 OVERALL SCORE: 380

Employee's Comments:.....
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SIGNATURES:

Employee: J. Schmitt .....Date: 14 March 96

Appraiser: Steve Binkley .....Date: 3/14/96

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

Jeff's editorial output for 1996-97 --- from March 1996 issue to Feb. 1997 issue
He needs 16 articles to meet his performance review requirement.

03/96 Soulen (James Dewar) MS

04/96 Bradley (Nuclear Contamination)

05/96 Nordtvedt (Gravity and the Moon)
Thorne (Charge-Density-Wave Conductors)

06/96 Stix/Sessler, Rosenbluth (ITER debate)
Ebbesen (Carbon Nanotubes)

07/96 Beenakker (Quantum Point Contacts)

08/96 Chan (Liquid helium in Aerogel) ?

09/96 Boss (Extrasolar Planets) ?

10/96 Brenner (The Computing Revolution and the Physics Community)

11/96

12/96 Sikivie (The Pool-Table Analogy with Axion Physics)
Ricca (Topological Ideas and Fluid Mechanics)

01/97 Weart (The Discovery of the Risk of Global Warming)
Collins (Porous Silicon: From Luminescence to LEDs) -- finished up by Steve

02/97 Wheelon (Corona: The First Reconnaissance Satellites)

March '96 – Feb '97

JG <2.8 stories> → <2.4 last year>
<4.8 cols> → <5.1 cols> JS

Mar	+2	8, 4	Soulen (Dewar)
Apr	0	4, 3½, 3½, 4	Bradley (Nuc. Contam)
May	+1	18, 3	Nordtvedt, Thorne
Jun	+1	5, 2½, 4½	ITER, Ebbesen
July	+1	5, 4, 3	Beenakker
Aug	—		Chan
Sep	—		Boss
Oct	+5 Pres. Cand.	12	Brenner
Nov	+3	7, 4, 4	—
Dec.	+2	5, 4, 3	Sikivie, Ricca
Jan	+2	5, 4, 2, 1	Collins (didn't finish), Weart
Feb	+1	4, 4, 4	Wheelon

Mar — Mahan

			Recom	Action	
~~3~~	LT 527 9705 Weinstock		Acpt.	Rej	✓
7	601 9707	Pappu	Rej.	Rej.	
2	606 9707	Walder (Parsegian)	Acc	Withdrawn	✓
5	609 9707	Chubb	Acc.		
9	613 9707	Miley (ColdFusion)	Acc.		
21	615 9707	Huebner (Parsegian)	Acc	Published Dec	
22	616 9707	Jakobsson (Parsegian)	Acc	Published Dec	
74	628 9708	Dam	Acc	Published Dec	
37	641 9708	Luzzi	Rej.	Rej.	
70	644 9709	Lala (Ferguson)	[LOST?]		
12	646 9709	Hyder (Parsegian)	Rej.	Rej.	
17	651 9709	Greywall (Soulen)	Acc.		
09	663 9709	Buell (Libicki)	Acc. 2nd part.	?	
17	671 9709	Soulen Erratum	??		
77	731 9712	Veliadis	Rej.	Rej	
31	735 9712	Kacser	Acc.		
82	736 9712	Collinson	Rej		
87	741 9712	Nero (Ross)	Acc		
95	5443 9102	Praganna		Withdrawn 8/95	

old stuff

Record	LT #	Author	JS Recommends	Action
~~1034~~	~~10317 (9701)~~	Brooke	?	?
1039	10331	Melissinos	Acc	??
1041	10336	Prokes		Published 8/97
1053	10353	Gonzalez	Acc.	Publ. 11/97
1059	10362 (9702)	Guinter	Rej.	Rej.
062	10372	Gordon	—	Publ. 5/97
074	10395	Armas		Withdrawn
112	10453 (9703)	Malkin	Acc.	Publ. 8/97

Article Reviews

AR 616	9708 U	Erlichson	Rej.	Rej
	3056 (8809) U	Needell	Acc.	Rej.
4	4900 (9007) U	Gabriel		
3	5295 (8507) U	Adomian		
3	5603 (9105) U	Weiss		
	5703	OLD		
	5995	MSS		
	10125 (9607)	Brenner		Publ. 10/96
	10507 (9703)	Parsegian		

Record	LI #	Author	VJ Recommends	Action
1034	10317 (9701)	Brooke	?	?
1039	10331	Melissinos	Acc	??
1041	10336	Prokes		Published 8/97
1053	10353	Gonzalez	Acc.	Publ. 11/97
1059	10362 (9702)	Guinter	Rej.	Rej.
1062	10372	Gordon	—	Publ. 5/97
1074	10395	Armas		Withdrawn
1112	10453 (9703)	Malden	Acc.	Publ. 8/97

Article Reviews

AR 616	9708 U	Erlichson	Rej.	Rej
	3056 (8809) U	Needell	Acc.	Rej.
7	4900 (9007) U	Gabriel		
0	5295 (8507) U	Adomian		
3	5603 (9105) U	Weiss		
	5703	OLD		
	5995	MSS		
	10125 (9607)	Brenner		Publ. 10/96
	10507 (9703)	Parsegian		

PHYSICS TODAY February 13, 1997

PERFORMANCE REVIEW 1997

Employee Name: Jeff Schmidt
Division: Physics Today Manager: Steve Benka
Job Title: Senior Associate Editor
Reporting to: Editor
PERIOD: Feb 1996-Jan 1997 (PT issues March '96-Feb '97)

Overall Rating: 4

Major Responsibility 1: Edit articles

Weight: 80% Rating: 4.0 Rating: 320

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff is a thorough and professional editor. He edited 15 feature articles in this period, one shy of his agreed upon goal of 16. One of them (ITER debate, June '96) was very difficult to produce and was assigned to him at a late date. He did a fine job with that one, and with all of them. His articles are generally ready on time and often they are early. Jeff was also instrumental in streamlining the articles-editing process within PT.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 3.5 Rating: 52.5

Component tasks:
In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff has expressed a desire to always have at least one article ready to edit. He has also gotten involved at much earlier stages in the articles-acquisition process.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 3.0 Rating: 15
Component tasks:
1. Read submitted manuscripts (feature articles, letters and opinion pieces) at request of the editor and provide a review with regard to the suitability of the manuscript for publication.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Submit ideas for feature articles and news stories.

Comments:
Jeff's reviews are often insightful and useful, but they are not always prompt. His comments in meetings often provide a useful counterpoint to discussions. He is not expected to be a major source of ideas for articles and news stories, but occasionally has ideas with merit.

Appraiser's comments: Jeff is an excellent editor, and handles even the difficult assignments well. His comments and views on editorial ideas and policies are generally insightful.

Jeff needs to increase his article output in 1997 to at least 16, and preferably 18. He also needs to return his manuscript reviews promptly.

OVERALL RATING: 4.0 **OVERALL SCORE:** 387.5

Employee's Comments:

SIGNATURES:

Employee: J. Schmidt Date: 13 Feb. 97

Appraiser: Steve Benka Date: 2/13/97

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

PHYSICS TODAY February 13, 1997
PERFORMANCE REVIEW 1997 notes of October 22, 1997

Employee Name: Jeff Schmidt
Division: Physics Today Manager: Steve Benka
Job Title: Senior Associate Editor
Reporting to: Editor
PERIOD: Feb 1996-Jan 1997 (PT issues March '96-Feb '97)

Overall Rating: 4 (drop to 2-2.5 for disruptive behavior)

Major Responsibility 1: Edit articles

Weight: 80% Rating: 4.0 Rating: 320

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff is a thorough and professional editor. He edited 15 feature articles in this period, one shy of his agreed upon goal of 16. One of them (ITER debate, June '96) was very difficult to produce and was assigned to him at a late date. He did a fine job with that one, and with all of them. His articles are generally ready on time and often they are early. Jeff was also instrumental in streamlining the articles-editing process within PT.

(His editing is considered mediocre by our new, higher standards. He doesn't communicate his progress consistently to the editor.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 15% Rating: 3.5 Rating: 52.5

Component tasks:
In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff has expressed a desire to always have at least one article ready to edit. He has also gotten involved at much earlier stages in the articles-acquisition process.
(He's ok, but not enthusiastic.)

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 3.0 Rating: 15
Component tasks:
1. Read submitted manuscripts (feature articles, letters and opinion pieces) at request of the editor and provide a review with regard to the suitability of the manuscript for publication.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Submit ideas for feature articles and news stories.

Comments:
Jeff's reviews are often insightful and useful, but they are not always prompt. His comments in meetings often provide a useful counterpoint to discussions. He is not expected to be a major source of ideas for articles and news stories, but occasionally has ideas with merit.
(His frequesntly disruptive behavior at meetings, and his divisive influence on the staff have had a very serious negative effect on morale throughout the department. He shows his lack of interest in participating by, e.g., working on articles during staff meetings.)

Appraiser's comments: Jeff is an excellent editor, and handles even the difficult assignments well. His comments and views on editorial ideas and policies are generally insightful.
Jeff needs to increase his article output in 1997 to at least 16, and preferably 18. He also needs to return his manuscript reviews promptly.

(He must not only put an end to his disruptive and divisive behavior, but work actively to promote unity among the staff and management.)

OVERALL RATING: 4.0 (2-ish) OVERALL SCORE: 387.5(??)

Employee's Comments:

SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Date:.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

AMERICAN INSTITUTE OF PHYSICS
PAYROLL AUTHORIZATION FORM B

EMPLOYEE: JEFFREY SCHMIDT DIVISION: PHYSICS TODAY
EMP. NO. 1437 SSN: [redacted]

REMARKS: ANNUAL REVIEW

SALARY CHANGE INFORMATION:

Position Title	GRADE	Current Range	Effective	Next Review
SR ASSOC EDITOR	E08	47150.00 - 62600.00 - 78050.00	3/1/97	3/1/98

Previous Salary	Amount of Increase	New Salary	Percent Increase
62400.00	2600	65,000	4.2

Quartile: 2 Overall Rating: 4

Steve Benka — Recommending Party
cdl — Authorized Approval
Personnel

TITLE CHANGE INFORMATION

From: SR ASSOC EDITOR To: Effective:

New Grade: New Range: $

Division Head
Personnel

TRANSFER

From: PHYSICS TODAY To:

Effective Date:

Division Head
Division Head
Personnel

MISCELLANEOUS REMARKS:

MAR/REV:JPW

D00311

PHYSICS TODAY

tentative SCHEDULE OF ARTICLES (ever-evolving) November 5 ~~October 22~~, 1997

(**Articles in Bold Face** are required by the editorial calendar)

January 1998	**Mourou — Ultra-High-Power Laser Pulses**	**Tech**	**JS**
	Neitzel — When Liquids Stay Dry	Tech	CD
	Sokolsky — Highest Energy Cosmic Rays	Tech	BMS
February 1998	Blanpied — Science and Policy in 1947	Hist	IG
(Only 3 will run)	Goldstein — Quantum Theory without Observers(I)	Tech	JS
	Gehrels — The New Gamma-Ray Astronomy	Tech	CD
	Auciello — Ferroelectric Thin Films	**Tech**	**??**
March 1998	Goldstein — Quantum Theory without Observers(II)	Tech	JS
	Hallock — ^{3}He Floating on ^{4}He	Tech	??
April 1998	Liebfried et al. — The Wigner Function	Tech	GPC
	Ramaty — Origin of the Light Elements	Tech	JS
	Snyder — Light Guiding Light	Tech	JS
	Segev — Self-Trapping of Optical Beams	Tech	JS
	Heeger — Metallic & Semiconducting Polymers	Tech	JS
May 1998	**Happy Birthday to Us — PT's 50th Anniversary Spec. Iss.**		**GBL**
June 1998	Perryman — Measuring the Heavens with Hipparcos	Tech	??
July 1998	Busch-Vishniac — Trends in Sensors/Actuators	Semi-Tech	??

PHYSICS TODAY February 11, 1998
PERFORMANCE REVIEW 1998

Employee Name: Jeff Schmidt
Division: Physics Today
Job Title: Senior Associate Editor
Reports to: Editor
PERIOD: Feb 1997-Jan 1998 (PT issues March '97-Feb '98)

Overall Rating: (drop to 2-2.5 for disruptive behavior)

Major Responsibility 1: Edit articles

Weight: 76% Rating: ~~2.5~~ 3.0 Score: ~~190~~ 228

Comments: Jeff's articles are generally ready on time and often they are early. His productivity, however, slipped for the second year in a row, and others had to compensate. (He edited ~~14~~ 15 feature articles in this period, ~~two~~ one shy of his original goal of 16. This counts Goldstein, which will appear in two parts in March and April, as ~~a single~~ two article. Seven months into this review period, we made an adjustment (reflected in the above weight) because of his imminent fatherhood that effectively reduced his goal to 15.) He declined several articles that were offered to him to edit (including Fink, Cohn, Jeanloz, Kasap, and a second one for the October special issue).

Jeff's editing ~~was very uneven~~ ranging from very good (as with Perl, who praised Jeff's work) through mediocre (Crabtree, Nelson) to very poor (Mourou's article was very sloppily done, and the Editor corrected many substantive errors of physics and notation that Jeff should have spotted). Overall, Jeff fell short of Physics Today's new, higher standards. His tendency is to simply correct in some fashion what the author submits. This is fine if the author is a capable writer, but when rewriting is called for (as the Editor called for in the introduction to the Harris article -- July '97, p36), Jeff has not delivered.

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Comments: Jeff seems to have improved in this area of his job, and regularly nudges authors and reviewers whose items are still pending. Nevertheless, those items still don't materialize in ~~reasonable timeframes~~.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 1.0 Score: 5.0

Comments:
Jeff's reviews of manuscripts have been completed more promptly than in the past, but there is still room for improvement. His reviews, however, have been less helpful than in the past. For example, in his review of one Letter to the Editor, he suggested that the authors of the Hubble Deep Field article (April '97) didn't know their physics.

Jeff was asked by the Editor to handle his own correspondence with authors, as is done by all other articles editors. He did. Jeff was asked by the Editor to voluntarily do some of his own keyboarding of editorial changes, as is done by all other articles editors. He ~~refused.~~ has not.

His comments in meetings and elsewhere at work have come to have a negative impact at the magazine, often encouraging divisions among the staff---spreading dissent with some and intimidating others---and causing rifts with management. During this review period, Jeff was given a formal reprimand for his disruptive behavior, which does not support the editorial effort of Physics Today.

Appraiser's comments: Jeff is a capable editor, who is capable of doing more than he has. He devoted much energy to managerial matters during this review period, to the detriment of the office environment. He needs to devote that energy to the job for which he was hired --- acquiring and editing articles. The slight adjustment to Jeff's productivity that we made to accomodate his circumstances cannot be continued. He needs to produce 18 high-quality articles in the next review period, rewriting text as needed, and doing all of his own keyboarding; he is capable of producing 20 or more. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, Jeff's interactions with all staff members and with management must at all times be consistent with, and actively promote a collegial, cohesive, professional working environment for all.

OVERALL RATING: 2.5 OVERALL SCORE: 261.5

Employee's Comments:

SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Date:.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

From: Stephen Benka
To: charris
Subject: Jeff's PR

PHYSICS TODAY February 16, 1998
PERFORMANCE REVIEW 1998

Employee Name: Jeff Schmidt
Division: Physics Today
Job Title: Senior Associate Editor
Reports to: Editor
PERIOD: Feb 1997-Jan 1998 (PT issues March '97-Feb '98)

Major Responsibility 1: Edit articles

Weight: 76% Rating: 3.0 Score: 228

Comments: Jeff's articles are generally ready on time and often they are early; this is greatly appreciated. Seven months into this review period, we made an adjustment (reflected in the above weight) because of his imminent fatherhood that effectively reduced his production goal from 16 to 15, and he met his revised goal. This counts Goldstein, which will appear in two parts in March and April, as two articles. He declined several articles that were offered to him to edit (including Fink, Cohn, Jeanloz, Kasap, and a second one for the October special issue).

Jeff's editing ranged from very good (as with Perl, who praised Jeff's work) through average (Crabtree, Nelson) to poor (Mourou's article was very sloppily done, and the Editor corrected many substantive errors of physics and notation that Jeff should have spotted).

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Comments: Jeff seems to have improved in this area of his job, and regularly nudges authors and reviewers whose items are still pending.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 1.0 Score: 5.0

Comments:
Jeff's reviews of manuscripts have been completed more promptly than in the past, but there is still room for improvement. His reviews, however, have been less helpful to the Editor than in the past. For example, in his review of one Letter to the Editor, he suggested that the authors of the

Hubble Deep Field article (April '97) didn't know their physics, which calls his judgement into question.

Jeff was asked by the Editor to handle his own correspondence with authors, as is done by all other articles editors, and he did. Jeff was also asked by the Editor to do some of his own keyboarding of editorial changes, as is done by all other articles editors, but to date he has not.

Some of his comments in meetings and elsewhere at work have come to have a negative impact at the magazine, often encouraging divisions among the staff---spreading dissent with some and intimidating others---and causing rifts with management. An example is his refusal to judge the editing abilities of job candidates from a common test assignment. During this review period, Jeff was given a formal reprimand for his disruptive behavior, which does not support the editorial effort of Physics Today.

Appraiser's comments and Performance Plan: Jeff is a capable editor, who is capable of doing more than he has. The slight adjustment to Jeff's productivity that we made to accomodate his circumstances must be reversed, to ask as much of him as is asked of others on the staff. In the next review period, he needs to produce 18 high-quality articles, rewriting text as needed, handling his own correspondence and doing all of his own keyboarding; he is capable of producing 20 or more articles. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, Jeff's interactions with all staff members and with management must at all times be consistent with, and actively promote a collegial, cohesive, professional working environment for all.

OVERALL RATING: 3.0 **OVERALL SCORE:** 299.5

PHYSICS TODAY
PERFORMANCE REVIEW 1998

February 16, 1998

Employee Name: Jeff Schmidt
Division: Physics Today
Job Title: Senior Associate Editor
Reports to: Editor
PERIOD: Feb 1997-Jan 1998 (PT issues March '97-Feb '98)

Overall Rating: (drop to 2-2.5 for disruptive behavior)

Major Responsibility 1: Edit articles

Weight: 76% Rating: 3.0 Score: 228

Comments: Jeff's articles are generally ready on time and often they are early; this is greatly appreciated. Seven months into this review period, we made an adjustment (reflected in the above weight) because of his imminent fatherhood that effectively reduced his production goal from 16 to 15, and he met his revised goal. This counts Goldstein, which will appear in two parts in March and April, as two articles. He declined several articles that were offered to him to edit (including Fink, Cohn, Jeanloz, Kasap, and a second one for the October special issue).

Jeff's editing ranged from very good (as with Perl, who praised Jeff's work) through average (Crabtree, Nelson) to poor (Mourou's article was very sloppily done, and the Editor corrected many substantive errors of physics and notation that Jeff should have spotted).

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Comments: Jeff seems to have improved in this area of his job, and regularly nudges authors and reviewers whose items are still pending.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 1.0 Score: 5.0

Comments:
Jeff's reviews of manuscripts have been completed more promptly than in the past, but there is still room for improvement. His reviews, however, have been less helpful to the Editor than in the past. For example, in his review of one Letter to the Editor, he suggested that the authors of the Hubble Deep Field article (April '97) didn't know their physics, which calls his judgement into question.

Jeff was asked by the Editor to handle his own correspondence with authors, as is done by all other articles editors, and he did. Jeff was also asked by the Editor to do some of his own keyboarding of editorial changes, as is done by all other articles editors, but to date he has not.

Some of his comments in meetings and elsewhere at work have come to have a negative impact at the magazine, often encouraging divisions among the staff---spreading dissent with some and intimidating others---and causing rifts with management. An example is his refusal to judge the editing abilities of job candidates from a common test assignment. During this review period, Jeff was given a formal reprimand for his disruptive behavior, which does not support the editorial effort of Physics Today.

Appraiser's comments and Performance Plan: Jeff is a capable editor, who is capable of doing more than he has. The slight adjustment to Jeff's productivity that we made to accomodate his circumstances must be reversed, to ask as much of him as is asked of others on the staff. In the next review period, he needs to produce 18 high-quality articles, rewriting text as needed, handling his own correspondence and doing all of his own keyboarding; he is capable of producing 20 or more articles. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, Jeff's interactions with all staff members and with management must at all times be consistent with, and actively promote a collegial, cohesive, professional working environment for all.

OVERALL RATING: 2.5 OVERALL SCORE: 261.5

Employee's Comments:

SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Date:.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

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PHYSICS TODAY
PERFORMANCE REVIEW 1998

February 16, 1998

Employee Name:	Jeff Schmidt	Job Title:	Senior Associate Editor
Division:	Physics Today	Reports to:	Editor
PERIOD:	Feb 1997-Jan 1998 (PT issues March '97-Feb '98)		

Major Responsibility 1: Edit articles

Weight: 76% Rating: 3.0 Score: 228

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff's articles are generally ready on time and often. For this review period, he was asked to produce 16--18 articles. Seven months into this review period, we made an adjustment (reflected in the above weight) because of his imminent fatherhood that effectively reduced his production minimum from 16 to 15, and he met this revised goal. (This counts the two-part Goldstein article (Mar & Apr '98) as two articles, both completed within this period.) He declined several articles that were offered to him for editing (including Fink, Cohn, Jeanloz, Kasap, and a second one for the October special issue).

His work ranged from very good (as with Perl, who praised the editing) through average (Crabtree, Nelson) to poor (the Mourou article had a number of substantive errors of physics and notation, which should have been spotted by Jeff but had to be corrected by the Editor).

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Component tasks:

In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did well in this area of his job, and regularly nudged authors and reviewers whose items were pending.

10% ? - per TB

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 2.0 Score: 10.0

Component tasks:

1. Read submitted manuscripts (feature articles, letters and opinion pieces) at request of Editor and provide a review with regard to the suitability of the manuscript for publication.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Submit ideas for feature articles and news stories.

Comments: Jeff's reviews of manuscripts have been completed more promptly than in the past, although they were somewhat less helpful. In his review of one Letter to the Editor, for example, he showed questionable judgement in his assessment of the physics competence of the authors of the Hubble Deep Field article (April '97). Another example that his contributions to the overall editorial effort of Physics Today slipped during this period, is his decision not to help judge the editing abilities of job candidates from a common test assignment, judging them all equally qualified. Not being a reporter, he is still not expected to be a major source of article and story ideas.

per C.H

Appraiser's comments and Performance Plan: Over the last few years, Physics Today has been undergoing a number of changes -- including raising levels of productivity, editorial quality and graphic design. Jeff is very capable of meeting these new demands. At the request of the Editor, Jeff did begin to handle his own correspondence with authors, as is done by all other articles editors. He has not yet begun to do his own keyboarding of editorial changes, as is done by all other articles editors.

In the next review period, he is expected to produce 18 high-quality articles, editing and rewriting text as needed, handling his own correspondence and doing all of his own keyboarding. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, he is expected to provide helpful support to the overall editorial effort of the magazine.

OVERALL RATING: 3.0 OVERALL SCORE: ~~299.5~~ 304.5

~~3/12/96~~

- 5 -

MHB notes on tentative response to Jeff Schmidt

1. Reviewed process

2. Process was sound & fair -- job requirements defined
Don't ~~(except that your (Schmidt) refusal to give~~ evident, reasonable scoring & grading.
Say ~~multiple is necessary~~ blind tests is troublesome) blind writing test ~~[illegible]~~

3. Reviewed Substance

4. ~~Did not find~~ Can Names your exceptions were ~~all rejected for reasons~~ not solely for reasonable reasons.

5. SB & CH believe in AA - I am convinced
- Not giving "A's" to minorities is not "zero value"
- Costly wide net is of value.

PHYSICS TODAY March 12, 1998
PERFORMANCE REVIEW 1998

Employee Name:	Jeff Schmidt	Job Title:	Senior Associate Editor
Division:	Physics Today	Reports to:	Editor
PERIOD:	Feb 1997-Jan 1998 (PT issues March '97-Feb '98)		

Major Responsibility 1: Edit articles

Weight: 76% Rating: 3.0 Score: 228

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff's articles are generally ready on time and are often early. For this review period, he was asked to produce 16–18 articles. Seven months into this review period, we made an adjustment (reflected in the above weight) because of his imminent fatherhood that effectively reduced his production minimum from 16 to 15, and he met this revised goal. (This counts the two-part Goldstein article (Mar & Apr '98) as two articles, both completed within this period.) He declined several articles that were offered to him for editing (including Fink, Cohn, Jeanloz, Kasap, and a second one for the October special issue).

His work ranged from very good (as with Perl, who praised the editing) through average (Crabtree, Nelson) to poor (the Mourou article had a number of substantive errors of physics and notation, which should have been spotted by Jeff but had to be corrected by the Editor).

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Component tasks:

In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did well in this area of his job, and regularly nudged authors and reviewers whose items were pending.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 2.0 Score: 10.0

Component tasks:

1. Read submitted manuscripts (feature articles, letters and opinion pieces) at request of Editor and provide a review with regard to the suitability of the manuscript for publication.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Submit ideas for feature articles and news stories.

Comments: Jeff's reviews of manuscripts have been completed more promptly than in the past, although they were somewhat less helpful. In his review of one Letter to the Editor, for example, he showed questionable judgement in his assessment of the physics competence of the authors of the Hubble Deep Field article (April '97). Not being a reporter, he is still not expected to be a major source of article and story ideas.

Appraiser's comments and Performance Plan: Over the last few years, Physics Today has been undergoing a number of changes—including raising levels of productivity, editorial quality and graphic design. Jeff is very capable of meeting these new demands. At the request of the Editor, Jeff did begin to handle his own correspondence with authors, as is done by all other articles editors. He has not yet begun to do his own keyboarding of editorial changes, as is done by all other articles editors.

In the next review period, he is expected to produce 18 high-quality articles, editing and rewriting text as needed, handling his own correspondence and doing all of his own keyboarding. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, he is expected to provide helpful support to the overall editorial effort of the magazine.

OVERALL RATING: 3.0 OVERALL SCORE: 304.5

Employee's Comments:

SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Steve Benka.....Date:.....3/23/98.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

PHYSICS TODAY March 12, 1998
PERFORMANCE REVIEW 1998

Employee Name:	Jeff Schmidt	Job Title:	Senior Associate Editor
Division:	Physics Today	Reports to:	Editor
PERIOD:	Feb 1997-Jan 1998 (PT issues March '97-Feb '98)		

Major Responsibility 1: Edit articles

Weight: 76% Rating: 3.0 Score: 228

Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.
2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff's articles are generally ready on time and are often early. For this review period, he was asked to produce 16–18 articles. Seven months into this review period, we made an adjustment (reflected in the above weight) because of his imminent fatherhood that effectively reduced his production minimum from 16 to 15, and he met this revised goal. (This counts the two-part Goldstein article (Mar & Apr '98) as two articles, both completed within this period.) He declined several articles that were offered to him for editing (including Fink, Cohn, Jeanloz, Kasap, and a second one for the October special issue).

His work ranged from very good (as with Perl, who praised the editing) through average (Crabtree, Nelson) to poor (the Mourou article had a number of substantive errors of physics and notation, which should have been spotted by Jeff but had to be corrected by the Editor).

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Component tasks:

In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did well in this area of his job, and regularly nudged authors and reviewers whose items were pending.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 2.0 Score: 10.0

Component tasks:

1. Read submitted manuscripts (feature articles, letters and opinion pieces) at request of Editor and provide a review with regard to the suitability of the manuscript for publication.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Submit ideas for feature articles and news stories.

Comments: Jeff's reviews of manuscripts have been completed more promptly than in the past, although they were somewhat less helpful. In his review of one Letter to the Editor, for example, he showed questionable judgement in his assessment of the physics competence of the authors of the Hubble Deep Field article (April '97). Not being a reporter, he is still not expected to be a major source of article and story ideas.

Appraiser's comments and Performance Plan: Over the last few years, Physics Today has been undergoing a number of changes—including raising levels of productivity, editorial quality and graphic design. Jeff is very capable of meeting these new demands. At the request of the Editor, Jeff did begin to handle his own correspondence with authors, as is done by all other articles editors. He has not yet begun to do his own keyboarding of editorial changes, as is done by all other articles editors.

In the next review period, he is expected to produce 18 high-quality articles, editing and rewriting text as needed, handling his own correspondence and doing all of his own keyboarding. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, he is expected to provide helpful support to the overall editorial effort of the magazine.

OVERALL RATING: 3.0 OVERALL SCORE: 304.5

Employee's Comments:

SIGNATURES:

Employee: (Read) J. Schmitt Date: 20 Aug. 98

Appraiser: Steve Benka Date: 3/23/98

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review: M Lundstrom Date: 4/27/98

1/9/98 conv. w/Terri B. Jeff's review was

More indepth last year, for a 4.

Review is weak, for dropping a whole point.

Last # needs specifics to hold up, or remove it — Jeff will use it for "whistle blowing" to advisory committee. (e.g. email

Goal last year was 16-18, changed to 15 4

Back to 18.

Comments vague on overall effort @ PT

Use same component tasks

From: Charles Harris
To: SBENKA
Date: 3/20/98 8:10am
Subject: Jeff's PR, revised per Terri. -Reply

Steve,

In general, fine. I'm not comfortable with the line about Jeff evaluating candidates for the job. that is not part of his job description and each editor should have the option to participate or not. perhaps i can call you from the road later today.

ceh

PHYSICS TODAY February 16, 1998
PERFORMANCE REVIEW 1998

Employee Name: Jeff Schmidt Job Title: Senior Associate Editor
Division: Physics Today Reports to: Editor
PERIOD: Feb 1997-Jan 1998 (PT issues March '97-Feb '98)

Major Responsibility 1: Edit articles
Weight: 76% Rating: 3.0 Score: 228
Component tasks:

1. Edit articles for content (including art), clarity, organization, length, readability, house style, grammar, spelling and impact. Do this in conjunction with authors and the editor, and so as to meet editorial deadlines.

2. See articles through production. This includes obtaining or performing revisions, proofreading, preparing layouts and checking bluelines, all so as to meet editorial deadlines.

Comments: Jeff's articles are generally ready on time and often early. For this review period, he was asked to produce 16--18 articles. Seven months into this review period, we made an adjustment (reflected in the above weight) because of his imminent fatherhood that effectively reduced his production minimum from 16 to 15, and he met this revised goal. (This counts the two-part Goldstein article (Mar & Apr '98) as two articles, both completed within this period.) He declined several articles that were offered to him for editing (ir.cluding Fink, Cohn, Jeanloz, Kasap, and a second one for the October special issue).

His work ranged from very good (as with Perl, who praised the editing) through average (Crabtree, Nelson) to poor (the Mourou article had a number of substantive errors of physics and notation, which should have been spotted by Jeff but had to be corrected by the Editor).

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Component tasks:

In consultation with the editor:

1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did well in this area of his job, and regularly nudged authors and reviewers whose items were pending.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: 2.0 Score: 10.0

Component tasks:

1. Read submitted manuscripts (feature articles, letters and opinion pieces) at request of Editor and provide a review with regard to the suitability of the manuscript for publication.
2. Attend and participate in staff meetings to develop ideas for articles, news stories, special issues, etc.
3. Submit ideas for feature articles and news stories.

Comments: Jeff's reviews of manuscripts have been completed more promptly than in the past, although they were somewhat less helpful. In his review of one Letter to the Editor, for example, he showed questionable judgement in his assessment of the physics competence of the authors of the Hubble Deep Field article (April '97).

Appraiser's comments and Performance Plan: Over the last few years, Physics Today has been undergoing a number of changes -- including raising levels of productivity, editorial quality and graphic design. Jeff is very capable of meeting these new demands. At the request of the Editor, Jeff did begin to handle his own correspondence with authors, as is done by all other articles editors. He has not yet begun to do his own keyboarding of editorial changes, as is done by all other articles editors.

In the next review period, he is expected to produce 18 high-quality articles, editing and rewriting text as needed, handling his own correspondence and doing all of his own keyboarding. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, he is expected to provide helpful support to the overall editorial effort of the magazine.

OVERALL RATING: 3.0 OVERALL SCORE: 299.5

Conv. w/

3/20/98 Terri spoke with Marc re Jeff:

Marc wants us to say in the review that Jeff's disruptive behavior was forgiven. Terri and I think that's not a good idea, but it should be mentioned in talking with Jeff — and the talk documented.

Marc's mtg w/ Jeff went ok, though Jeff didn't agree w/ decision and was disappointed Marc hadn't talked w/ Jean Kumagai. Jeff says it is A/P policy "to train all employees in AA every year." Terri says we train all new employees during orientation. She needs to see that all employees are trained once, then all new ones as they come in, and change the policy's wording.

Marc (according to Terri) ~~confronted~~ mentioned Jeff's disruptive behavior at staff meetings. Jeff claimed that any "disruptions" were for only "ten seconds" — that "the staff wouldn't allow it to continue for days."

AMERICAN INSTITUTE OF PHYSICS
PAYROLL AUTHORIZATION FORM B

EMPLOYEE: JEFFREY SCHMIDT DIVISION PHYSICS TODAY
EMP. NO. 1437 SSN: [redacted]

REMARKS: ANNUAL REVIEW

SALARY CHANGE INFORMATION:

Position Title	Grade	Current Range			Effective	Next Review
SR ASSOC EDITOR	E08	48550.00	64500.00	80400.00	3/1/98	3/1/99

Previous Salary	Amount of Increase	New Salary	Percent Increase
65000.00	1500.00	66500.00	2.3%

Quartile:	Amount of Previous Increase	Previous % of Increase	Overall Rating:
3	2600.00	4.17	3.0

TITLE CHANGE INFORMATION

From: SR ASSOC EDITOR To: _____ Effective: _____

New Grade: New Range: $ _____

TRANSFER

From: PHYSICS TODAY To: _____ Effective Date: _____

Steve Barker — Recommending Party — Date: 3/24/98

_____ — Authorized Approval — Date: 3/24/98

_____ — Personnel — Date: _____

MISCELLANEOUS REMARKS:

PAF Created by:

D00357

From: Charles Harris
To: SBENKA
Date: 3/19/98 1:41pm
Subject: Jeff's PR -Reply

PHYSICS TODAY February 16, 1998
PERFORMANCE REVIEW 1998

Employee Name: Jeff Schmidt
Division: Physics Today
Job Title: Senior Associate Editor
Reports to: Editor
PERIOD: Feb 1997-Jan 1998 (PT issues March '97-Feb '98)

Major Responsibility 1: Edit articles

Weight: 76% Rating: 3.0 Score: 228

Comments: Articles are generally ready on time and often early. An agreed production goal of 15 articles was met. Editing ranged from very good (as with Perl, who praised the editing) through average (Crabtree, Nelson) to poor (the Mourou article had a number of substantive errors of physics and notation, which should have been spotted by Jeff but had to be corrected by the Editor).

Major Responsibility 2: Take responsibility for assigned articles

Weight: 19% Rating: 3.5 Score: 66.5

Comments: Jeff showed much improvement in this area. He regularly nudged authors and reviewers whose items were pending.

Major Responsibility 3: Support the editorial effort of PT

Weight: 5% Rating: ~~1.0~~ 2 Score: ~~5.0~~ 10

Comments:
Reviews of manuscripts were completed more promptly than in the past, although they were somewhat less helpful. In his review of one Letter to the Editor, for example, he showed questionable judgement in his assessment of the physics competence of the authors of the Hubble Deep Field article (April '97).

At the request of the Editor, Jeff did begin to handle his own correspondence with authors, as is done by all other articles editors. He has not yet begun to do his own keyboarding of editorial changes, as is done and expected by all other articles editors.

Appraiser's comments and Performance Plan: Over the last few years, Physics Today has been undergoing a number of changes -- raising levels of productivity, editorial quality and graphic design. Jeff is very capable of meeting these new demands. In the next review period, he is expected to produce 18 high-quality articles, rewriting text as needed, handling his own correspondence and doing all of his own keyboarding. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, Jeff's interactions with all staff members and with management must at all times be consistent with, and actively promote a collegial, cohesive, professional working environment for all.

OVERALL RATING: **3.0** **OVERALL SCORE: 299.5**

304.5

PHYSICS TODAY March 12, 1998
PERFORMANCE REVIEW 1998

Employee Name: [illegible]midt Job Title: Senior Associate Editor
Division: Reports to: Editor
PERIOD: 3/24/98 [illegible]ch '97-Feb '98)

PHYSICS TODAY
from Stephen G. Benka

Major Responsibility [illegible]
Weight: 7
Component tasks:
1. Edit a[illegible] gth, readability,
house s[illegible] with authors and
the edi[illegible]
2. See[illegible] iorming revisions,
proofi[illegible] to meet editorial
deadl[illegible]

Comments: [illegible]rly. For this review
period, he[illegible] is review period, we
made an a[illegible]minent fatherhood that
effectivel[illegible]let this revised goal.
(This co[illegible]articles, both completed
within t[illegible]o him for editing (including
Fink, C[illegible]ial issue).

His wo[illegible]ng) through average
(Crab[illegible]ostantive errors of physics and
notat[illegible]ected by the Editor).

Jeff feels this review is factually incorrect, mean-spirited, punitive, and makes unreasonable demands for the future. I answered that it is an accurate assessment of his performance, and sets forth a reasonable workload for a full-time editor.

Major Responsibility 2: [illegible]icles
Weight: 19% Rating: [illegible]
Component tasks:
In consultation with the editor:
1. Contact authors to obtain outlines and manuscripts.
2. Contact referees for advice on outlines and manuscripts.
3. Evaluate outlines and manuscripts, in conjunction with the editor and referee. Give feedback to the author, to develop an appropriate article.

Comments: Jeff did well in this area of his job, and regularly nudged authors and reviewers whose items were pending.

I asked Jeff if this was accurate and if so, I'd send the note down to HR with his review.
He said it was accurate "as far as it goes."
[illegible] unsigned

3/24/98

Didn't think his quality of editing slipped. I told him the Monroe article convinced me that his editing can't be entrusted to just a proofreader, as in the past.

Said not "imminent fatherhood" but a dearth of articles forced the adjustment.

I reminded him that he had asked for several months paternity leave — Susan had started the paperwork with HR. He had made it clear that he didn't want any more articles, not even one for the October special issue. Some weeks after his request, he withdrew it and insisted on getting some ready-to-edit articles.

He agreed this is what happened.

I told him that he well knew the articles had been reassigned to others. That he didn't have articles because he hadn't wanted any, not because of any shortage. He acknowledge that was the case.

We agreed I would change the wording from "imminent fatherhood" to something like "canceled paternity leave."

He thought the ~~article~~ review was punishment for his "organizing efforts." I asked him what he was talking about — I certainly knew of some of his disruptive and counterproductive behavior (in fact he was reprimanded for it) but I know nothing about his "organizing." Repeated that the review was punitive.

Jeff thinks we're asking too much of him — more than of the other editors. I assured him we weren't.

He said, as in the past, that he shouldn't have to keyboard, indicating that such work was for menials, not for him. I said all the other articles editors did their own keyboarding and in fact use that as an additional chance to improve the ms. He said not everyone edits in the same way. I agreed but repeated that he needs to keyboard. He again said that should be part of his job and I finally frivolously suggested he subcontract out his keyboarding. He then dropped the issue.

D00360

He said that mine was "one approach to management" but he didn't find it inspiring.

11/'00 - Pitt - [illegible]

He wants to grow in "other directions" at PT, maybe do some reporting. I told him no way — ~~ka~~ I don't believe he has the best interests of PT or its readers at heart, and the last time he tried "reporting" only angered our neighbors at UMd.

I told him he would edit articles. If he wanted to do other things it would be at another publication, not at PT.

4/1/98 SB conv w/ Jeff: I said he was removed from the May issue.

→ Poor editorial judgement on his part

→ No team effort – shut out Warren, drove him to quit.

→ More work for others to fix it.

He says the decision is wrong (to remove him).

" " Warren wanted even more political items, but I pointed out that was Warren's role – Jeff's was to find the physics. He said his role was to make it "interesting." I said that showed his poor judgement, since his view of "interesting" presented a very ~~poor~~ unbalanced image of Physics Today – it was not a political magazine.

He said he had many (he quoted a specific number) of physics items and was working with Gloria to include them. He was a team player. I said his "autocratically dictating" to Warren what Warren's input should be was clear evidence to the contrary. His physics excerpts were "after the fact," I said.

I told him I had seen enough of both his poor judgement and his lack of team spirit – he needn't trouble himself further with the May issue. He should work on Dekker for June.

4/24/98

PHYSICS TODAY

from Stephen G. Benka

Jeff's parting words to Graham (on his farewell card).

"To truth, whether they like it or not. Keep up the good work."

SB working copy

27 April 1998

To: Theresa Braun, Director of Human Resources, and James Stith, Director of Physics Programs, American Institute of Physics

From: Jeff Schmidt, Senior Associate Editor, Physics Today

Subject: My 1998 performance review

I am writing to ask that my 1998 performance review be redone. Physics Today editor Stephen Benka wrote the review under the direction of Physics Today publisher Charles Harris. I discussed the review with Benka, who, after consulting with Harris, refused to make any of the revisions that I requested. Therefore I am appealing to you to produce a new review. The review was not conducted in accord with American Institute of Physics policy or procedures, and the result is not a fair assessment of my work as a feature articles editor at AIP's Physics Today magazine. I am asking you to produce a new review not just in the interest of accuracy, but also as a necessary affirmation that in the future the American Institute of Physics will treat its employees fairly.

(1) pt waiting for n to come k & talk some sri. Had already reed to some changes, e.g. "paternity leave." It was Jeff who told CH that nothing should be changed.

The review lowers my performance rating from last year's "4" ("Exceeds Job Requirements") to a "3" ("Meets Job Requirements") even though this year I did more work and more innovative work. Producing feature articles for the monthly magazine is a team effort, and I think that the many staff members with whom I work will testify that my work is better than average.

(2) claimed this activity for the 1st time in his PR discussion. Both Paul & Toni deny that I any organized activity.

The biased review that I received is punishment for my organizing activity at the magazine. It is one of a number of recent reprisals for -- and moves to stop -- such activity, in which I have played a leading role in the interest of both the magazine's staff and the physics community. The central retaliatory feature of the review is that it makes what it admits are "new demands," which amount to a sharp increase in my workload.

(1) (3) = note to

I have had 17 performance reviews since I began working at Physics Today in March 1981, but until now I have never needed to write a response to one. This time, however, not only is the review inaccurate, but my supervisor, editor Benka, presented it to me with the attitude that performance reviews at AIP are not done with employees, but are done to them. This violates both the letter and the spirit of AIP policy. He acted as if he were not permitted to change the review in any significant way, and so his discussion of its contents was only pro forma.

In this memo I will first describe some of the ways in which the review is inaccurate, and then ~~I will~~ explain how

it is a reprisal for my organizing activity and part of a series of recent attempts to stop me from engaging in any further collective activity at the magazine.

Review inaccurate

I will go over every sentence of the performance review and show how the review plays down or completely leaves out my accomplishments while contriving deficiencies and playing them up. The review has four sections: three sections focusing on my major areas of work responsibility and one section of additional comments.

Article editing

(4)

Concerning my article editing work, the review states that "Jeff's articles are generally ready on time and are often early." This plays down my accomplishments and does so deliberately, because management keeps records of deadlines and work-completion dates and is fully aware of what I have done in this regard. The words "generally ready on time" must be changed, because my articles were always ready on time and never delayed an issue of the magazine. And the words "often early" must also be changed, because my articles were almost always early and were often very early.

Check! I closed on day "zero"

This is not to say that management can reasonably hold me responsible for the final completion dates of the articles that I work on. They cannot, because the publication process depends upon the work of the magazine's editor and many coworkers, over whom I have no authority. What my review should note is that I always did my part as fast or faster than can reasonably be expected, and certainly much faster than average. At one point during the year, for example, I had two feature articles ready to go to the printer more than a month before the deadline (discussed further in the following two paragraphs). As far as anyone can remember, this had never been accomplished before at Physics Today. My articles came close to the deadline only when the editor failed to meet his deadline for obtaining the articles and giving them to me to edit. I ask that you rewrite this part of my performance review and increase the numerical rating to reflect the resulting more accurate appraisal. I am asking you to do this not just to make my review more accurate, but also to assert that it is not AIP policy to begrudge an employee praise when it is due, even if AIP has a grudge against that employee.

On the issue of deadlines, I would like AIP to use its own performance as the standard for comparison. AIP gave me my performance review more than five weeks late, missing its mid-February deadline and then not even completing the review by the middle of the following month. Benka dated my review 12 March, signed it on 23 March and gave it to me on 24 March.

(5) One big reason that I did more work this year than last year was because management stated that it wanted the magazine to have a backlog of feature articles that were edited and completely ready to be sent to the printer. I supported this goal and produced such articles, but this unprecedented accomplishment is not mentioned in my performance review. Management is fully aware of my accomplishment, as evidenced by the fact that they praised it at a staff meeting.

Working way ahead of the deadline has the potential advantage of avoiding some major inefficiencies (described in the following paragraph), but doing so turned out to involve extra work, because although management asked for and praised the result, they did not support the effort while it was underway. It was left to me to bring about the (6) changes in the workplace necessary to work ahead. The editor consistently maintained a crisis mentality, always giving priority to work for the next issue -- which he always worried would be late -- over work for future issues. Because the work of most employees on a forthcoming issue doesn't end until around the time that the issue goes to press, the editor, with his crisis priorities, never deemed it reasonable to work on later issues. I was able to accomplish management's goal of completing work ahead of schedule only by working directly with the staff team that actually does the work (Rita Wehrenberg, editorial assistance; Paul Elliott, copy editing; Elliot Plotkin, art work; Judy Barker, proof reading; Carol Lucas, photo permissions), and carefully avoiding coming to the overly insecure editor with questions of work priority. I ask you to add this accomplishment to my performance review and raise the numerical rating to reflect the resulting less biased appraisal. I ask you to do this not only to make my performance review more accurate, but also as a way of saying that AIP does not condone biased appraisals of employees.

(5) Another big reason I did more work this year was the inefficiency caused by the magazine's periodic exhaustion of its supply of feature article manuscripts that are ready to edit for publication. It is Benka's responsibility to obtain articles for the magazine. The shortage of articles resulted in a very uneven work flow and forced me to edit some articles close to the deadline, which often meant editing in parallel with the author's making revisions. It is easy for the editor to say "just work in parallel," but such work often necessitates reediting material that the author changes and discarding edited material that the author removes, and a host of other problems. The shortage (7) of articles led me to write to the editor in the middle of the year asking for more work. (See attached memo of 18 August 1997.)

The numbers given in the performance review are all wrong. The review says that this year I "was asked to produce 16-18 articles." In fact, the agreed upon rate was initially 16 per year, not "16-18," the precise meaning of which is not at all clear since there presumably is no upper limit. Benka and I later in the year agreed to reduce the annual rate to 14 and increase the amount of work that I do in areas other than editing, yet the number "14" never appears in my performance review. I ask you to correct this.

As far as the article editing part of my job goes, my production rate is supposed to be measured by the number of articles published in the magazine in the issues March 1997 through February 1998, as is written at the top of the review form. During that year I edited 13 articles (Mahan, Ferguson, Crabtree, Crowley, North, Parsegian/Austin, Harris, Soulen, Libicki, Perl, Ross, Riordan, Mourou), one of which (the Parsegian and Austin combination article) should count as more than one because making it happen involved a lot of extra work. (More about that article below.) Although this is less than the agreed upon goal, it should be deemed acceptable because of the shortage of articles (AIP should not hold employees responsible for doing work that is not available to do) and because of the extra work caused by that shortage and by management's lack of support for working ahead. Please correct the accounting in this part of the review.

The review gives an incorrect reason (a personal reason) for the mid-year change in my job description. The reduction in my article editing goal from 16 to 14, and the corresponding increase in my work following up with authors on articles that have been solicited, was prompted by the magazine's shortage of articles. On 18 August 1997 I gave Benka a note (attached) asking for more articles to edit. On 19 August 1997 he answered with a very defensive note (attached) blaming me in part for the magazine's shortage of articles and at the same time denying that there was any such shortage. He claimed that I was in part to blame, because following up on solicited articles was part of my job. On the same day (19 August 1997) Benka secretly altered my job description, adding truth to his claim that solicitation follow-up was a significant part of my job. When I discovered the change, he and I discussed it and I agreed to make solicitation follow-up a bigger part of my job. I asked him to write me a note saying that my job description had been changed (see 25 August 1997 note from Benka, attached).

The change in my job description, while made official in the middle of the year, should be considered retroactive to the beginning of the year, because the problem it addressed was long-standing and I had long before addressed it on my own: The shortage of articles to edit had already

led me to shift some of my work from editing to solicitation follow-up. Solicitation follow-up is an area in which I make valuable contributions to the magazine. This often time-consuming work includes giving feedback to authors and working closely with them to develop greatly improved articles for the magazine.

Finally, on 2 September 1997 I gave Benka a note (attached) explaining that solicitation follow-up was not the weak link in the magazine's feature article operation. That note, the contents of which Benka never disputed, is an important part of this appeal about my performance review, and as such, I ask you to read it. Please remove from my performance review the incorrect reason given for the change in my job description, and add a statement concerning the magazine's shortage of articles, because it played a crucial role in my work last year.

My work on the Parsegian/Austin combination article is one of many examples of how my performance review leaves out major contributions that I have made to the magazine (while carefully including minor, largely contrived, deficiencies). Physics Today was planning to publish in its July 1997 issue a manuscript by V. Adrian Parsegian of the National Institutes of Health, but the article received a highly negative appraisal from the magazine's external reviewer, Robert H. Austin of Princeton University. This caused a crisis, because the magazine had no article to substitute -- having completely run out of articles -- and because there was no time for Parsegian to make the extensive revisions that were called for by the reviewer.

Based on the nature of Parsegian's article, the nature of Austin's review and my confidence in the critical abilities of the magazine's readers, I suggested a solution: Publish the article and the review. This was unprecedented at Physics Today, but the editor followed my advice, in part because no other solution was apparent. I edited the combination article and review and handled the delicate and protracted negotiations between Parsegian and Austin, who did not trust each other. The solution was innovative, the result was outstanding and the magazine survived a crisis without damage. In fact, the result was better than it would have been had there been no crisis, because the crisis allowed the magazine to break with tradition. Yet the managers, who seem this year to have developed photographic memories for negative things (real or contrived), have completely forgotten about my special contribution to the magazine during the Parsegian crisis. I ask that my work on the Parsegian/Austin article be described on my annual review, as an example of my valuable advice and above-average work. And I ask that my numerical rating be raised to reflect the new, unbiased text.

You might think it strange that even though the review states that I edited enough articles during the year, it

lists the names of some articles that I didn't edit -- articles that were never assigned to me and that I was not expected to edit. That list appears on my performance review as a defensive measure by the editor -- to bolster his claim that under his editorship the magazine does not experience shortages of articles. Soliciting a sufficient number of articles for the magazine is the editor's job, and so the appropriate home for arguments that he has succeeded is the "Employee's Comments" section of his own performance review. Please remove the sentence and its negative connotation from my performance review. (For a discussion of how the list is not even what it claims to be, see the fourth paragraph of my memo of 2 September 1997.) Such lists do not appear on the performance reviews of other employees. The performance reviews of Physics Today news writers, for example, do not contain lists of the countless news stories that they could have written but didn't.

The review lists three articles that I edited (Perl, Crabtree/Nelson, Mourou) and claims that the quality of my work varied. In fact, because of my own standards I do a quality job on everything I do. There is, of course, no objective measure of the quality of editorial work. Articles are inherently different and hold a different appeal to different readers. In my performance review the editor implies that praise from authors is one measure, but he fails to note that we received praise from the authors of all three articles. Martin Perl, winner of the 1995 Nobel Prize in Physics, wrote to me and said "Thank you for changing my ugly duckling of a manuscript into a beautiful swan. You have done a wonderful job." I have attached a copy of his note along with a note from George Crabtree of Argonne National Laboratory praising our efficiency, competence and high production standards; Mourou delivered his praise in a telephone call.

It is true that the changes that Benka mentions making in the Mourou article were improvements that other staff members or the author might not have made at one of the later stages in the processing of the article. However, it is wrong to use this as the sole factor in judging the quality of work on the entire article, which would have been excellent even without Benka's improvements. And it is even more wrong to use it to judge an employee's entire year of work. Stephen Benka knows this. He knows, for example, that AIP management will not judge all of his excellent work on the Mourou article solely by the fact that he tried to introduce a mistake in the article's opening paragraph -- where he crossed out "30 angstroms" and wrote in "300 nm" and had to be corrected by the Article Editor. And he knows that his supervisors certainly will not judge his entire year of work in part by this mistake. He would see mentioning it on his annual performance review as petty, mean-spirited and sure to make team work impossible because it would give the impression that no error is too small for

the people that he works with to silently note and use against him months later. Please remove from my performance review the entire subjective sentence about the three articles.

Solicitation follow-up

Concerning my solicitation follow-up work, the performance review understates the quality of my work and rates me only slightly above average. The only activity mentioned is that I "regularly nudged authors and reviewers whose items were pending." This is actually the smallest part of solicitation follow-up work. The biggest part, at least for the articles that I work on, is giving detailed feedback to the author and working with the author to develop a much better article. I often go way beyond the call of duty, taking extra time to work closely with authors to improve the final result. I am prepared to supply written evidence showing that my work in this area is exemplary. Please change the review so that it more accurately portrays my work in this area, and raise the numerical rating from the present stingy "3.5."

Advice

Concerning the advice that I offer on editorial and other matters, my supervisors have suddenly (that is, within this review period) started looking for ways to prove that the advice I offer is bad. Coming up empty-handed, they have contrived two examples, one of which is a new, negative interpretation of advice I gave in an earlier review period. My 1998 performance review says, "Jeff's reviews of manuscripts have been completed more promptly than in the past, although they were somewhat less helpful." It is simply not true that my advice was less helpful this year. My comments on manuscripts often went beyond the minimum requirements and spelled out in detail what should be done to produce a publishable article.

As evidence that my advice is less helpful, the performance review gives only the following example, which is presumably my most deficient piece of work in this area for the entire year: "In his review of one Letter to the Editor, for example, he showed questionable judgement in his assessment of the physics competence of the authors of the Hubble Deep Field article (April '97)." There is absolutely no truth to this charge; its only value is that it reveals the bias of those who made it. I demand that my work on this letter be evaluated by an unbiased individual. James Stith, I would like you to be that individual, not because it is your job to handle appeals from Physics Today, but because your long-standing interest and expertise in physics education qualifies you to evaluate my work on this letter. All work on the letter was done in writing, and so you have a 100% complete record to review (attached). I challenge

you to find anything in my work on the letter for which I should be punished.

Here is a five-step summary of the facts of the case:

1. I edited an article by Henry Ferguson and two coauthors for the April 1997 issue of Physics Today.

2. Robert Weinstock, an emeritus professor of physics at Oberlin College, submitted a letter to the editor saying that he didn't understand how astronomers could look back more than half the age of the universe, as a photo caption in the article said. "This claim seems strange to me," wrote Weinstock, "for radiation emitted so long ago must have had its source so close to Earth at the moment of emission -- according to the generally assumed big-bang origin of the currently expanding universe -- that it would have reached Earth [long ago]." He ended his letter by saying that "If there is something wrong with my analysis, I shall be grateful to have it explained to me."

3. I thought Weinstock asked an intriguing question and that many of our readers would also be grateful for an explanation (and would value a magazine that gave them such explanations). Here, in its entirety, is my review of the letter: "I think a lot of our readers would appreciate an answer to the question that Weinstock raises. I suggest that we publish a shortened letter (see enclosed edited version) along with an answer from Ferguson." (The parenthetical words were part of my review.)

4. To my disappointment, the response from Ferguson and his coauthors was based completely on equations, with no explanation of what was going on. I wanted a physical explanation, not a mathematical one. So I recommended that we ask Ferguson & Co. for something very simple. Of course, as good science writers and teachers know, an explanation that is simple and without equations is sometimes much more difficult to produce. Sometimes when scientists don't have a Feynman-style intuitive understanding of a particular issue, they take refuge in equations. That is, sometimes authors don't understand the physics of every item that they report in their articles. I have encountered this countless times over the years while questioning authors so that I could clarify something in their articles. Sometimes they say: I don't know, my coauthor wrote that part of the article. Or they say: I don't know, I got that from So and So's paper in such and such journal. So in my review of Ferguson's letter I warned that this was one possible reason why we got only equations. I figured that if we were aware of this possibility, then we wouldn't go back to the authors again and again in a futile effort to get something that they were not prepared to supply. Here, in its entirety, is my review of Ferguson's letter: "Weinstock's question should get a physical explanation as an answer, not a

mathematical one like this. I say drop the mathematical one, don't just add the physical one to it. Perhaps ask Ferguson & Co. to write what they would say to a high-school student (or radio audience) who noticed this seeming contradiction. One possible reason that Fergie & Co. answered as they did is that they don't really understand the physics."

5. Benka rejected my suggestion that we ask Ferguson for a simple answer, and, ironically, punished me seven months later for not being fully confident that Ferguson could have provided such an answer. Because my advice was rejected, Physics Today readers ended up seeing no question from Weinstock and no answer from Ferguson.

You can see clearly now that while my performance review says, "he showed questionable judgement in his assessment of the physics competence of the authors," I in fact never made any assessment of the physics competence of the authors, positive or negative. Even if I had made such an assessment, the Physics Today managers did not and cannot accurately claim that the advice it led me to give was anything less than excellent. Their relentless search to find fault with my work, and their twisted and biased evaluations of my work when it contains no real fault, raise serious questions about their professionalism as managers and certainly disqualify them from judging my performance. If you judge that I did good work on the letter, as I claim, then I ask that my performance review mention that work as an example of my routine interest in serving the magazine's readers, and that the numerical rating on my review be raised to reflect the new, unbiased assessment. I ask AIP to make these adjustments not just to make my performance review more accurate, but more importantly as an urgently needed announcement that AIP will no longer use performance reviews to punish employees who raise troubling workplace issues.

As with every other part of my performance review, Benka refused to make any changes in this part of the review when I pointed out its inaccuracy. I asked him if he had any other examples of my supposedly bad judgment. All he could think of was something from an earlier review period: my suggestion that Physics Today try to get G. Pascal Zachary to write an article about Vannevar Bush. Zachary is a journalist -- one of the best in the country, I think -- as well as a history of science scholar. I had learned that he was writing the first ever biography of Bush, who was the first presidential science advisor and an individual who played a key role in shaping the federal science policy that prevailed for decades after World War II. After I proposed this article at a staff meeting, Physics Today publisher Charles Harris spoke about it with AIP history division postdoc Joel Genuth, a friend of Harris's at the time. I spoke with Genuth, too. Genuth advised against the article,

because Zachary was not a mainstream thinker -- quickly adding that he (Genuth) was "no slouch" and could write the article for Physics Today. At a subsequent staff meeting, I reported positive evaluations of my proposal from more established science historians and argued that our readers could handle Zachary's point of view. But Harris stuck with Genuth's review, and so that was the end of my proposal.

Now, more than a year later, during the discussion of my 1998 annual review, Benka has put a new, totally negative spin on my work on the Zachary proposal. To my surprise, when he mentioned my judgment in the Zachary case, Benka showed no sign of embarrassment, apparently completely unaware that Zachary's book was recently published to widespread praise and attention. The vast majority of books are not reviewed anywhere, but Zachary's Endless Frontier: Vannevar Bush, Engineer of the American Century (The Free Press, 1997) was both widely and positively reviewed by well-respected experts writing in major publications. (Please read the attached reviews.) Apparently, the official Physics Today line now is that Zachary managed to hoodwink major American publications and experts -- but not Physics Today. Again, because my advice was not followed, Physics Today readers missed out on what surely would have been an interesting article. Yet I am the one whose judgment is being questioned -- for reasons that I will explain below.

I ask that my performance review be corrected so that my judgment, and its value to the magazine, is discussed positively rather than negatively. I would like my work on the Zachary proposal to be mentioned as an example of the fact that I offer ideas of merit even though I am not expected to be a major source of article or story ideas. I ask that the numerical rating be raised to reflect the new positive evaluation, and that the rating be above average to reflect the fact that I offer more than the required advice. I request that AIP make this change not just to make my performance review more honest, but more importantly as an implied announcement that AIP will no longer prejudice performance reviews against employees who raise awkward workplace issues.

Additional comments

In the handbook that is given to all employees, the American Institute of Physics promises that the annual performance review will feature a discussion of "mutual goals." (Employee Handbook, page 18.) Without explanation, this year Benka followed neither the letter nor the spirit of this policy, and didn't even pretend to be interested in what direction I might want to go in my work at AIP. The discussion was unlike anything I have experienced in previous years. He simply announced a big change in my job description -- an increase in my workload by as much as

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true

three months' worth of work per year -- and discussed it as if he were giving orders to a machine. Over the years my job description has changed many times (the most recent change being on 25 August 1997), but never by unilateral management dictate, without discussion and mutual agreement. For reasons that I will explain below, I think this change, and its unilateral imposition in violation of American Institute of Physics policy and usual practice, is punitive.

The written review accurately calls the change "new demands." But it inaccurately implies that other Physics Today staff members are meeting such new demands. My coworkers have experienced no such major increases in their workloads either voluntarily or by management order (except in one or two cases in which individuals have voluntarily renegotiated their job descriptions, job titles and salaries). My coworkers and I work hard and cannot reasonably be expected to take on additional work. Among my coworkers who have not stepped up their workloads are Gloria Lubkin, Barbara Levi, Bert Schwarzschild, Charles Day, Irwin Goodwin, Carol Lucas, ~~Toni Feder, Jean~~ Kumagai and Warren Kornberg.

The 25 August 1997 agreed-upon change in my job description reduced my article editing work to 70% of my time (14 articles per year) so that I could increase my work in other areas, which I have done. Now, just a few months later, AIP is using my performance review to arbitrarily increase my annual article editing load to 18 -- a 28 percent jump. The performance review also changes my job description to add a significant load of clerical work (keyboarding) to my job for the first time in my 17 years at the magazine. Other editors who work better on paper (for example, the book review editor and the copy editor) are not being told to change the way they work or to take on the associated clerical work. This clerical work, which includes keyboarding the dozens of changes made by the copy editor, could take as much as a few days per month, depending upon the article. It would lower the overall efficiency of work at the magazine, because the time spent on clerical work would, of course, reduce the time available to do other work such as article editing and article solicitation; instead of paying $15/hour for clerical work, AIP would pay $30/hour. Like many people, I do better work on paper than on a computer screen (and a long-standing back problem precludes long sessions sitting in front of the screen anyway). I ask that support staff be made available once again. Even if management had a valid reason for adding clerical work to my job, that reason cannot be a new one. What is new is that, for reasons discussed below, management has suddenly gotten "on my case" and is taking a hard-line on every issue.

In Benka's pro forma discussion with me about my performance review, he never asked about the direction in

which I would like to go on the job. If I were able to take on additional work, I would like that additional work to be somewhat different from what I am doing now, to provide some variety and to contribute to the magazine in a different way. When I explained this to Benka, he acted uninterested and reasserted his uninspiring, unilaterally developed plan for me, which is to do the same work, only a lot more of it.

Reprisal and repression

The American Institute of Physics is making a strong effort to prevent Physics Today staff members from pursuing workplace grievances in an organized way. Problems are to be discussed with managers on an individual basis only, we have been told. (Message transmitted to staff through warnings to Graham Collins and in other ways.)

Physics Today staff members have many legitimate concerns. Many believe, for example, that the company fails to provide conditions of employment appropriate for professionals. According to my philosophy, if there is a problem, then everyone who is in a position to address it has a moral obligation to do so. Thus, problems at the magazine are everyone's business -- the business at least of everyone who works there. Even though management doesn't see it that way, I have always tried to do whatever I could to help solve problems that arise, whether or not they affect me directly. You, too, are in a position to do something about the problems at the magazine, and therefore I think you have an obligation to do so, for the sake of both the magazine's staff and the physics community.

out of context disruptive, unproductive behavior"

During the discussion of my performance review, Physics Today editor Stephen Benka condemned my organizing activities at the magazine and said bluntly that such activity "is not going to be tolerated anymore." He characterized the staff actions in which I have played a leading role as nothing more than "disruptive," rejecting my view that the source of the problem is management's failure to address staff grievances. A workplace in which unity is discouraged, as it is now at the magazine, is disruptive. The low morale, the inability to confront problems, the loss of talented and dedicated staff due to a love-it-or-leave-it atmosphere -- these consequences of management policy are disruptive and wasteful.

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Physics Today publisher Charles Harris has made it clear to me and to many staff members (names withheld) that our activities have infuriated him. And American Institute of Physics Executive Director/CEO Marc Brodsky has characterized some of my activities, presumably reported to him by Harris, as "counterproductive" (20 March 1998). It is clear that Benka's hard-line attitude toward me is an attempt to redress Harris's and Brodsky's grievances with

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I don't know anything about this.

the staff -- in particular, with those staff members whom Harris has identified as ringleaders. (Harris's ringleader theory insults the staff, because it implies that staff grievances arise not because of real problems in the workplace, but because an evil few have corrupted the minds of happy but gullible staff members and led them astray like children.)

In this memo I will be open about my organizing activities at Physics Today, because the problems at the magazine call for an organized response and because the physics community strongly supports physicists' right to organize without fear of reprisal. The latter point is evidenced, for example, in the community's many years of support for Soviet physicists who were punished for organizing, and in its concern today for physicists in other countries who face similar repression. In any case, freedom to address workplace problems is a necessary component of a truly democratic society.

Management is attempting in two ways to prevent the Physics Today staff from pursuing collective grievances -- by punishing those who speak out the most and by maintaining an increasingly repressive workplace atmosphere. My lower performance rating and subjection to an arbitrarily revised job description that makes "new demands" are punishments for taking up staff grievances. What follows is a discussion of a few of the collective staff activities in which I played a leading role and for which management criticizes me. Included is a discussion of some of the repressive measures that management has taken in response to those activities. The discussion should make it clear that my review is only one part of a series of recent attempts to stop me from promoting or engaging in any concerted staff activity.

1996 retreat

During the discussion of my performance review, Benka criticized me for my activities around the 19-20 November 1996 Physics Today retreat. Before that two-day meeting, I and some coworkers (names withheld) developed and distributed to the entire staff a list of changes that we wanted made at the workplace. We presented these requests in the form of a proposed agenda for the retreat. Fearing reprisals for making requests that might not please management, we did not disclose our names. However, the fact that I played a leading role was known to all. Job security was our highest priority, and so our demand for that topped our list. (See item 1 in attached document of 15 November 1996.) Other requests included staff involvement in workplace dispute resolution (item 4), better distribution of job tasks (item 5), affirmative action in hiring (item 8), and conditions of employment appropriate for professionals (the other items).

I told the staff this was a "not brainer," and I'm immediate and timing AA steps.

Salary equity

I worked with other staff members to demand pay equity at Physics Today. On behalf of those of us who were pushing for this, I told the Physics Today advisory committee at their 4 October 1996 meeting that the large salary differentials among the staff were not only unfair, but also divisive and bad for morale and productivity. I raised the issue at various staff meetings as well. Management was not pleased by the pressure we applied, in part because it forced them to give a staff member (name withheld) a special 25% salary increase, beginning on 1 June 1997.

Affirmative action

Management's anger at me increased dramatically, and never subsided, when I worked with Jean Kumagai and other staff members (names withheld) to assert the need for equal opportunity and affirmative action in hiring at Physics Today. We raised the issue when Ray Ladbury left the magazine, creating an opening on the editorial staff. (His replacement, Charles Day, started work on 2 June 1997.) I spoke out strongly on the equal opportunity and affirmative action issue, because Jean and I and the others didn't think Physics Today or AIP management took it seriously. Our concerns were largely ignored, and so, later in the year, we decided to bring the problem to the attention of the Physics Today advisory committee at its annual meeting, held 17 October 1997. On behalf of the concerned staff members (names withheld), I brought the matter to the committee's attention.

One week later, on 24 October 1997, American Institute of Physics Executive Director/CEO Marc Brodsky called me and said that I had made "a very, very serious charge." (Detailed notes available.) He directed me to meet with him and defend my charge, and I did so on 5 November 1997. At that meeting I gave Brodsky a note summarizing the important points. Rather than repeat those points here, I am attaching a copy of the note. (See note of 5 November 1997.) That note is an important part of this appeal about my performance review, and so I ask that you read it.

At my meeting with Brodsky I also pointed out that AIP had failed to conduct the affirmative action training that it promised to conduct in its 284-page "1996 Affirmative Action Program for American Institute of Physics." (See attached excerpts.) Among the many promises that AIP makes in that 1996 document is that "During the current plan year we will be conducting training for all employees about our affirmative action program and equal employment opportunity in the workplace." I pointed out to Brodsky that AIP did not conduct the promised training. He countered by saying that he was pretty sure that he mentioned affirmative action either at the one-hour question-and-answer session that he

held on 20 June 1996 or at the Q&A meeting that he conducted for employees at AIP's facility in Woodbury, New York. (I recall no such mention at the 20 June 1996 College Park meeting.) He indicated that this mention was the promised affirmative action "training."

Brodsky said he would look into affirmative action at Physics Today and tell me what he found. After a 4.5-month investigation, he met with me on 20 March 1998 and reported that he found that Physics Today's affirmative action program was doing very well. He said he judges the program by its results. (This was mysterious, because as of 20 March 1998, the Physics Today staff in the College Park office was all white; out of a staff of 18, the magazine had only one minority employee, working from New York.) I asked again about the promised affirmative action training. This time he said he was sure that he had mentioned affirmative action at both 1996 Q&A meetings, and he again indicated that such mention was the promised affirmative action training. After extensive questioning, he said that such mention was "part of" the promised training. I asked him when the rest of the training would be done, and he promised to look into that. In the end, I told Brodsky that we still believe our concerns to be well founded and that we are disappointed with his response. Apparently in Brodsky's view, however, the upshot of what happened is that I leveled serious, totally unfounded charges at AIP, and he is not happy about that.

1997 retreat

Management's anger at me increased yet again (and has not decreased since) when I helped raise staff concerns before and during the 25 September 1997 one-day Physics Today retreat. Before that meeting, I played a leading role in producing a list of proposed agenda items that represented a few of the many staff concerns. A majority of the staff supported it, and half of the staff signed it. (See attached e-mail message of 18 September 1997.) The top item on that list was a request for greater staff participation in decision making. The days leading up to the meeting saw much debate between management and many staff members over the meeting agenda, which management was formulating. Harris became upset that the staff wasn't embracing his agenda, and he began treating me and my coworker Graham Collins as ringleaders on the staff side, apparently becoming permanently angry at us.

At the retreat itself I asked if staff members could ask questions. Harris said no. I then said that I thought that we <u>should</u> be allowed to ask questions. Harris angrily said "No, That's an order!" Some days after the meeting he explained that he thought my request for the right to ask questions was another attempt to promote the staff agenda. At the retreat and in subsequent weeks, a number of brave

coworkers openly criticized Harris for the way in which he shut me up.

Gag order

After the retreat Harris put a gag order on me, handing me a written "notice" that implied that I would be fired the next time I said anything that Harris considered to be "counterproductive." (Document dated 26 September 1997 withheld.) This outraged many of my coworkers, who saw my forced silence as against their interest. They openly criticized the gag order, forcing Harris to rescind it. (Electronic mail message of 2 December 1997 withheld.) He did so reluctantly and without any decrease in his anger toward me.

Appeal to advisory committee

The gag order was just one of many management actions that strongly discouraged staff members from raising grievances of any sort. In an effort to get this chill lifted, a number of staff members (names withheld) decided to appeal to the Physics Today advisory committee at its annual meeting on 17 October 1997. We made our appeal to the committee, which reports to AIP's top management, in writing (memo of 17 October 1997 withheld) and in individual oral presentations. Our written note was titled, "Freer Atmosphere Needed at Physics Today" and began, "At Physics Today there is an increasingly repressive atmosphere that discourages staff initiatives...." The memo described how Physics Today staff member Graham Collins had also been warned about speaking up about workplace problems. It contained the following paragraph: "Both Jeff and Graham have been outspoken about problems that many of us see at the magazine. We feel that the lecture to Graham and the written notice to Jeff both contribute to a repressive atmosphere at the magazine and restrict all of us. We hope the advisory committee will do whatever it can to get these warnings retracted, and to remind the PT managers that repression is counterproductive. Such steps would go a long way toward diminishing the fear that staff members now associate with trying to openly address problems at the magazine."

Harris has harshly criticized me for my leading role in the presentations to the advisory committee, telling me and others (names withheld) incorrectly that I tried to get him fired. He sees this as an unforgivable offense that obligates him as a matter of manly honor to fire me or eventually drive me out and that gives him the moral right to do so by any means. Those means include steps that appear honest to outsiders but are not -- such as the present performance review, which imposes an unattainable goal that can be used against me a year from now when it has

not been met. When I explained to Harris that neither I nor the other staff members involved tried to get him fired or even wanted that to happen, he replied that I was either naive or lying. (I still do not want him fired, but I can no longer speak for others on this point. Respect and support for Harris by other staff members, including some not involved in our collective activities, have deteriorated sharply.)

Ban on my private conversations

In pursuit of his agenda, Harris has evidently given Benka license to go after me and other perceived management enemies on the staff. I will briefly describe here a recent example. (A more detailed account is available.) At about 6 pm on Wednesday 28 January 1998, I was in my office talking to my coworker Toni Feder on the telephone when Benka opened the door and asked rudely and sarcastically if I was talking to one of our authors. I said, "No, I'm talking to a coworker, Toni." He acted as if he already knew that. He stepped further into my office and said that he wanted in on our conversation. This was unprecedented and frightful. I switched Toni to the speakerphone and told her that Stephen Benka was here and wanted to be in on our conversation. She sounded equally shocked. Benka suggested that she walk over from her office to mine, and she said OK. I then walked out of my office and into the open area of desks just outside, and Benka followed. I did this to make room for Toni and to get some physical distance between myself and my supervisor, who was clearly behaving very strangely.

After Toni arrived, Benka asked us what we had been talking about on the telephone. I thought his question was way out of line, but I answered it anyway: We had been discussing the May 1998 50th anniversary issue of Physics Today. But after giving that short answer, I said that the important question is why he was trying to barge in on our conversation.

made no such statement 20 21

He answered by announcing that Physics Today management is forbidding all private conversations between staff members at work. From now on, all conversations between staff members must be open to management supervision, he said. When I asked him why, he referred to the organizing activity that took place last year and said that he doesn't want that to happen again. This smelled like a retaliatory and repressive policy aimed primarily at me, and so I asked him whether or not it applies to everyone. He said it does. I didn't believe him (but I didn't say that I didn't believe him), and so I pressed him three or four times to say whether or not he was going to announce the new policy to the rest of the staff. His final statement was that he knows that I want to know that.

The policy was never formally imposed on the rest of the staff, of course. But news of management's anger at private conversations spread quickly throughout the staff (yes, by way of private conversations). Even though the totalitarian policy officially applies only to me and Toni, it has put a chill on everyone's expression and has contributed to the repressive atmosphere at Physics Today.

Physics Today loses Graham Collins

In this memo I have for obvious reasons focused on my own case. But I don't want to leave the impression that management is critical only of me. In fact, they target any employee who speaks out about workplace problems. My most outspoken coworker, Graham Collins, was also the subject of a gag order and other reprimands for saying what many on the staff were thinking but were afraid to say. (Graham's gag order and mine were lifted at the same time.) I won't explain here how management irresponsibly made leaving the magazine Graham's best option. The details are available elsewhere. But with permission from Graham and all involved, I am attaching a copy of a note to Graham that I helped write after he submitted his resignation. (See attached note of 16 March 1998; authors' names withheld.) Please read the note as an integral part of my performance review appeal, as it contains a number of important and relevant points not made elsewhere.

'On my case'

As I mentioned above, management is now "on my case," and so my work is now subjected to greater scrutiny. Without precedent, the magazine's management recently examined and criticized some of my work before I completed it. (That was my work on the first of the five decade sections for the May 1998 50th anniversary issue of Physics Today.) Ever since the 1997 retreat, Physics Today publisher Charles Harris has given me the impression that I am being monitored. After the retreat he attended almost every magazine department meeting that I attended -- meetings that he had only rarely attended in the past. After some meetings, he commented privately to others about my performance.

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Your moral responsibility

Physics Today's new love-it-or-leave-it policy, mentioned in the 16 March 1998 note to Graham, implies that the magazine's problems originate in the staff. Keeping the focus on the staff is not simply a harmless way that management diverts attention from itself, but is extremely costly. In the short time since Graham submitted his resignation, editor Benka's assistant Susan Funk has quit in frustration, and publisher Harris's assistant Carol Lucas has resigned. The loss of experienced staff, the

discouraged state of many of those who remain, the repressive atmosphere's toll on creativity -- in general, the frustration of those who want their job to be more than a simple exchange of time for money -- in these and other ways current policy wastes the resources of the physics community. You have a responsibility to undo the current widespread cynicism at Physics Today by making staff-initiated change possible.

27 April 1998

To: Theresa Braun, Director of Human Resources, and James Stith, Director of Physics Programs, American Institute of Physics

From: Jeff Schmidt, Senior Associate Editor, Physics Today

Subject: My 1998 performance review

I am writing to ask that my 1998 performance review be redone. Physics Today editor Stephen Benka wrote the review under the direction of Physics Today publisher Charles Harris. I discussed the review with Benka, who, after consulting with Harris, refused to make any of the revisions that I requested. Therefore I am appealing to you to produce a new review.

The review was not conducted in accord with American Institute of Physics policy or procedures, and the result is not a fair assessment of my work as a feature articles editor at AIP's Physics Today magazine. I am asking you to produce a new review not just in the interest of accuracy, but also as a necessary affirmation that in the future the American Institute of Physics will treat its employees fairly.

The review lowers my performance rating from last year's "4" ("Exceeds Job Requirements") to a "3" ("Meets Job Requirements") even though this year I did more work and more innovative work. Producing feature articles for the monthly magazine is a team effort, and I think that the many staff members with whom I work will testify that my work is better than average.

The biased review that I received is punishment for my organizing activity at the magazine. It is one of a number of recent reprisals for -- and moves to stop -- such activity, in which I have played a leading role in the interest of both the magazine's staff and the physics community. The central retaliatory feature of the review is that it makes what it admits are "new demands," which amount to a sharp increase in my workload.

I have had 17 performance reviews since I began working at Physics Today in March 1981, but until now I have never needed to write a response to one. This time, however, not only is the review inaccurate, but my supervisor, editor Benka, presented it to me with the attitude that performance reviews at AIP are not done with employees, but are done to them. This violates both the letter and the spirit of AIP policy. He acted as if he were not permitted to change the review in any significant way, and so his discussion of its contents was only pro forma.

In this memo I will first describe some of the ways in which the review is inaccurate, and then I will explain how

it is a reprisal for my organizing activity and part of a series of recent attempts to stop me from engaging in any further collective activity at the magazine.

Review inaccurate

I will go over every sentence of the performance review and show how the review plays down or completely leaves out my accomplishments while contriving deficiencies and playing them up. The review has four sections: three sections focusing on my major areas of work responsibility and one section of additional comments.

Article editing

Concerning my article editing work, the review states that "Jeff's articles are generally ready on time and are often early." This plays down my accomplishments and does so deliberately, because management keeps records of deadlines and work-completion dates and is fully aware of what I have done in this regard. The words "generally ready on time" must be changed, because my articles were always ready on time and never delayed an issue of the magazine. And the words "often early" must also be changed, because my articles were almost always early and were often very early.

This is not to say that management can reasonably hold me responsible for the final completion dates of the articles that I work on. They cannot, because the publication process depends upon the work of the magazine's editor and many coworkers, over whom I have no authority. What my review should note is that I always did my part as fast or faster than can reasonably be expected, and certainly much faster than average. At one point during the year, for example, I had two feature articles ready to go to the printer more than a month before the deadline (discussed further in the following two paragraphs). As far as anyone can remember, this had never been accomplished before at Physics Today. My articles came close to the deadline only when the editor failed to meet his deadline for obtaining the articles and giving them to me to edit. I ask that you rewrite this part of my performance review and increase the numerical rating to reflect the resulting more accurate appraisal. I am asking you to do this not just to make my review more accurate, but also to assert that it is not AIP policy to begrudge an employee praise when it is due, even if AIP has a grudge against that employee.

On the issue of deadlines, I would like AIP to use its own performance as the standard for comparison. AIP gave me my performance review more than five weeks late, missing its mid-February deadline and then not even completing the review by the middle of the following month. Benka dated my review 12 March, signed it on 23 March and gave it to me on 24 March.

One big reason that I did more work this year than last year was because management stated that it wanted the magazine to have a backlog of feature articles that were edited and completely ready to be sent to the printer. I supported this goal and produced such articles, but this unprecedented accomplishment is not mentioned in my performance review. Management is fully aware of my accomplishment, as evidenced by the fact that they praised it at a staff meeting.

Working way ahead of the deadline has the potential advantage of avoiding some major inefficiencies (described in the following paragraph), but doing so turned out to involve extra work, because although management asked for and praised the result, they did not support the effort while it was underway. It was left to me to bring about the changes in the workplace necessary to work ahead. The editor consistently maintained a crisis mentality, always giving priority to work for the next issue -- which he always worried would be late -- over work for future issues. Because the work of most employees on a forthcoming issue doesn't end until around the time that the issue goes to press, the editor, with his crisis priorities, never deemed it reasonable to work on later issues. I was able to accomplish management's goal of completing work ahead of schedule only by working directly with the staff team that actually does the work (Rita Wehrenberg, editorial assistance; Paul Elliott, copy editing; Elliot Plotkin, art work; Judy Barker, proof reading; Carol Lucas, photo permissions), and carefully avoiding coming to the overly insecure editor with questions of work priority. I ask you to add this accomplishment to my performance review and raise the numerical rating to reflect the resulting less biased appraisal. I ask you to do this not only to make my performance review more accurate, but also as a way of saying that AIP does not condone biased appraisals of employees.

Another big reason I did more work this year was the inefficiency caused by the magazine's periodic exhaustion of its supply of feature article manuscripts that are ready to edit for publication. It is Benka's responsibility to obtain articles for the magazine. The shortage of articles resulted in a very uneven work flow and forced me to edit some articles close to the deadline, which often meant editing in parallel with the author's making revisions. It is easy for the editor to say "just work in parallel," but such work often necessitates reediting material that the author changes and discarding edited material that the author removes, and a host of other problems. The shortage of articles led me to write to the editor in the middle of the year asking for more work. (See attached memo of 18 August 1997.)

The numbers given in the performance review are all wrong. The review says that this year I "was asked to produce 16-18 articles." In fact, the agreed upon rate was initially 16 per year, not "16-18," the precise meaning of which is not at all clear since there presumably is no upper limit. Benka and I later in the year agreed to reduce the annual rate to 14 and increase the amount of work that I do in areas other than editing, yet the number "14" never appears in my performance review. I ask you to correct this.

As far as the article editing part of my job goes, my production rate is supposed to be measured by the number of articles published in the magazine in the issues March 1997 through February 1998, as is written at the top of the review form. During that year I edited 13 articles (Mahan, Ferguson, Crabtree, Crowley, North, Parsegian/Austin, Harris, Soulen, Libicki, Perl, Ross, Riordan, Mourou), one of which (the Parsegian and Austin combination article) should count as more than one because making it happen involved a lot of extra work. (More about that article below.) Although this is less than the agreed upon goal, it should be deemed acceptable because of the shortage of articles (AIP should not hold employees responsible for doing work that is not available to do) and because of the extra work caused by that shortage and by management's lack of support for working ahead. Please correct the accounting in this part of the review.

The review gives an incorrect reason (a personal reason) for the mid-year change in my job description. The reduction in my article editing goal from 16 to 14, and the corresponding increase in my work following up with authors on articles that have been solicited, was prompted by the magazine's shortage of articles. On 18 August 1997 I gave Benka a note (attached) asking for more articles to edit. On 19 August 1997 he answered with a very defensive note (attached) blaming me in part for the magazine's shortage of articles and at the same time denying that there was any such shortage. He claimed that I was in part to blame, because following up on solicited articles was part of my job. On the same day (19 August 1997) Benka secretly altered my job description, adding truth to his claim that solicitation follow-up was a significant part of my job. When I discovered the change, he and I discussed it and I agreed to make solicitation follow-up a bigger part of my job. I asked him to write me a note saying that my job description had been changed (see 25 August 1997 note from Benka, attached).

The change in my job description, while made official in the middle of the year, should be considered retroactive to the beginning of the year, because the problem it addressed was long-standing and I had long before addressed it on my own: The shortage of articles to edit had already

led me to shift some of my work from editing to solicitation follow-up. Solicitation follow-up is an area in which I make valuable contributions to the magazine. This often time-consuming work includes giving feedback to authors and working closely with them to develop greatly improved articles for the magazine.

Finally, on 2 September 1997 I gave Benka a note (attached) explaining that solicitation follow-up was not the weak link in the magazine's feature article operation. That note, the contents of which Benka never disputed, is an important part of this appeal about my performance review, and as such, I ask you to read it. Please remove from my performance review the incorrect reason given for the change in my job description, and add a statement concerning the magazine's shortage of articles, because it played a crucial role in my work last year.

My work on the Parsegian/Austin combination article is one of many examples of how my performance review leaves out major contributions that I have made to the magazine (while carefully including minor, largely contrived, deficiencies). Physics Today was planning to publish in its July 1997 issue a manuscript by V. Adrian Parsegian of the National Institutes of Health, but the article received a highly negative appraisal from the magazine's external reviewer, Robert H. Austin of Princeton University. This caused a crisis, because the magazine had no article to substitute -- having completely run out of articles -- and because there was no time for Parsegian to make the extensive revisions that were called for by the reviewer.

Based on the nature of Parsegian's article, the nature of Austin's review and my confidence in the critical abilities of the magazine's readers, I suggested a solution: Publish the article and the review. This was unprecedented at Physics Today, but the editor followed my advice, in part because no other solution was apparent. I edited the combination article and review and handled the delicate and protracted negotiations between Parsegian and Austin, who did not trust each other. The solution was innovative, the result was outstanding and the magazine survived a crisis without damage. In fact, the result was better than it would have been had there been no crisis, because the crisis allowed the magazine to break with tradition. Yet the managers, who seem this year to have developed photographic memories for negative things (real or contrived), have completely forgotten about my special contribution to the magazine during the Parsegian crisis. I ask that my work on the Parsegian/Austin article be described on my annual review, as an example of my valuable advice and above-average work. And I ask that my numerical rating be raised to reflect the new, unbiased text.

You might think it strange that even though the review states that I edited enough articles during the year, it

lists the names of some articles that I didn't edit -- articles that were never assigned to me and that I was not expected to edit. That list appears on my performance review as a defensive measure by the editor -- to bolster his claim that under his editorship the magazine does not experience shortages of articles. Soliciting a sufficient number of articles for the magazine is the editor's job, and so the appropriate home for arguments that he has succeeded is the "Employee's Comments" section of his own performance review. Please remove the sentence and its negative connotation from my performance review. (For a discussion of how the list is not even what it claims to be, see the fourth paragraph of my memo of 2 September 1997.) Such lists do not appear on the performance reviews of other employees. The performance reviews of Physics Today news writers, for example, do not contain lists of the countless news stories that they could have written but didn't.

The review lists three articles that I edited (Perl, Crabtree/Nelson, Mourou) and claims that the quality of my work varied. In fact, because of my own standards I do a quality job on everything I do. There is, of course, no objective measure of the quality of editorial work. Articles are inherently different and hold a different appeal to different readers. In my performance review the editor implies that praise from authors is one measure, but he fails to note that we received praise from the authors of all three articles. Martin Perl, winner of the 1995 Nobel Prize in Physics, wrote to me and said "Thank you for changing my ugly duckling of a manuscript into a beautiful swan. You have done a wonderful job." I have attached a copy of his note along with a note from George Crabtree of Argonne National Laboratory praising our efficiency, competence and high production standards; Mourou delivered his praise in a telephone call.

It is true that the changes that Benka mentions making in the Mourou article were improvements that other staff members or the author might not have made at one of the later stages in the processing of the article. However, it is wrong to use this as the sole factor in judging the quality of work on the entire article, which would have been excellent even without Benka's improvements. And it is even more wrong to use it to judge an employee's entire year of work. Stephen Benka knows this. He knows, for example, that AIP management will not judge all of his excellent work on the Mourou article solely by the fact that he tried to introduce a mistake in the article's opening paragraph -- where he crossed out "30 angstroms" and wrote in "300 nm" and had to be corrected by the Article Editor. And he knows that his supervisors certainly will not judge his entire year of work in part by this mistake. He would see mentioning it on his annual performance review as petty, mean-spirited and sure to make team work impossible because it would give the impression that no error is too small for

the people that he works with to silently note and use against him months later. Please remove from my performance review the entire subjective sentence about the three articles.

Solicitation follow-up

Concerning my solicitation follow-up work, the performance review understates the quality of my work and rates me only slightly above average. The only activity mentioned is that I "regularly nudged authors and reviewers whose items were pending." This is actually the smallest part of solicitation follow-up work. The biggest part, at least for the articles that I work on, is giving detailed feedback to the author and working with the author to develop a much better article. I often go way beyond the call of duty, taking extra time to work closely with authors to improve the final result. I am prepared to supply written evidence showing that my work in this area is exemplary. Please change the review so that it more accurately portrays my work in this area, and raise the numerical rating from the present stingy "3.5."

Advice

Concerning the advice that I offer on editorial and other matters, my supervisors have suddenly (that is, within this review period) started looking for ways to prove that the advice I offer is bad. Coming up empty-handed, they have contrived two examples, one of which is a new, negative interpretation of advice I gave in an earlier review period. My 1998 performance review says, "Jeff's reviews of manuscripts have been completed more promptly than in the past, although they were somewhat less helpful." It is simply not true that my advice was less helpful this year. My comments on manuscripts often went beyond the minimum requirements and spelled out in detail what should be done to produce a publishable article.

As evidence that my advice is less helpful, the performance review gives only the following example, which is presumably my most deficient piece of work in this area for the entire year: "In his review of one Letter to the Editor, for example, he showed questionable judgement in his assessment of the physics competence of the authors of the Hubble Deep Field article (April '97)." There is absolutely no truth to this charge; its only value is that it reveals the bias of those who made it. I demand that my work on this letter be evaluated by an unbiased individual. James Stith, I would like you to be that individual, not because it is your job to handle appeals from Physics Today, but because your long-standing interest and expertise in physics education qualifies you to evaluate my work on this letter. All work on the letter was done in writing, and so you have a 100% complete record to review (attached). I challenge

you to find anything in my work on the letter for which I should be punished.

Here is a five-step summary of the facts of the case:

1. I edited an article by Henry Ferguson and two coauthors for the April 1997 issue of Physics Today.

2. Robert Weinstock, an emeritus professor of physics at Oberlin College, submitted a letter to the editor saying that he didn't understand how astronomers could look back more than half the age of the universe, as a photo caption in the article said. "This claim seems strange to me," wrote Weinstock, "for radiation emitted so long ago must have had its source so close to Earth at the moment of emission -- according to the generally assumed big-bang origin of the currently expanding universe -- that it would have reached Earth [long ago]." He ended his letter by saying that "If there is something wrong with my analysis, I shall be grateful to have it explained to me."

3. I thought Weinstock asked an intriguing question and that many of our readers would also be grateful for an explanation (and would value a magazine that gave them such explanations). Here, in its entirety, is my review of the letter: "I think a lot of our readers would appreciate an answer to the question that Weinstock raises. I suggest that we publish a shortened letter (see enclosed edited version) along with an answer from Ferguson." (The parenthetical words were part of my review.)

4. To my disappointment, the response from Ferguson and his coauthors was based completely on equations, with no explanation of what was going on. I wanted a physical explanation, not a mathematical one. So I recommended that we ask Ferguson & Co. for something very simple. Of course, as good science writers and teachers know, an explanation that is simple and without equations is sometimes much more difficult to produce. Sometimes when scientists don't have a Feynman-style intuitive understanding of a particular issue, they take refuge in equations. That is, sometimes authors don't understand the physics of every item that they report in their articles. I have encountered this countless times over the years while questioning authors so that I could clarify something in their articles. Sometimes they say: I don't know, my coauthor wrote that part of the article. Or they say: I don't know, I got that from So and So's paper in such and such journal. So in my review of Ferguson's letter I warned that this was one possible reason why we got only equations. I figured that if we were aware of this possibility, then we wouldn't go back to the authors again and again in a futile effort to get something that they were not prepared to supply. Here, in its entirety, is my review of Ferguson's letter: "Weinstock's question should get a physical explanation as an answer, not a

mathematical one like this. I say drop the mathematical one, don't just add the physical one to it. Perhaps ask Ferguson & Co. to write what they would say to a high-school student (or radio audience) who noticed this seeming contradiction. One possible reason that Fergie & Co. answered as they did is that they don't really understand the physics."

5. Benka rejected my suggestion that we ask Ferguson for a simple answer, and, ironically, punished me seven months later for not being fully confident that Ferguson could have provided such an answer. Because my advice was rejected, Physics Today readers ended up seeing no question from Weinstock and no answer from Ferguson.

You can see clearly now that while my performance review says, "he showed questionable judgement in his assessment of the physics competence of the authors," I in fact never made any assessment of the physics competence of the authors, positive or negative. Even if I had made such an assessment, the Physics Today managers did not and cannot accurately claim that the advice it led me to give was anything less than excellent. Their relentless search to find fault with my work, and their twisted and biased evaluations of my work when it contains no real fault, raise serious questions about their professionalism as managers and certainly disqualify them from judging my performance. If you judge that I did good work on the letter, as I claim, then I ask that my performance review mention that work as an example of my routine interest in serving the magazine's readers, and that the numerical rating on my review be raised to reflect the new, unbiased assessment. I ask AIP to make these adjustments not just to make my performance review more accurate, but more importantly as an urgently needed announcement that AIP will no longer use performance reviews to punish employees who raise troubling workplace issues.

As with every other part of my performance review, Benka refused to make any changes in this part of the review when I pointed out its inaccuracy. I asked him if he had any other examples of my supposedly bad judgment. All he could think of was something from an earlier review period: my suggestion that Physics Today try to get G. Pascal Zachary to write an article about Vannevar Bush. Zachary is a journalist -- one of the best in the country, I think -- as well as a history of science scholar. I had learned that he was writing the first ever biography of Bush, who was the first presidential science advisor and an individual who played a key role in shaping the federal science policy that prevailed for decades after World War II. After I proposed this article at a staff meeting, Physics Today publisher Charles Harris spoke about it with AIP history division postdoc Joel Genuth, a friend of Harris's at the time. I spoke with Genuth, too. Genuth advised against the article,

because Zachary was not a mainstream thinker -- quickly adding that he (Genuth) was "no slouch" and could write the article for Physics Today. At a subsequent staff meeting, I reported positive evaluations of my proposal from more established science historians and argued that our readers could handle Zachary's point of view. But Harris stuck with Genuth's review, and so that was the end of my proposal.

Now, more than a year later, during the discussion of my 1998 annual review, Benka has put a new, totally negative spin on my work on the Zachary proposal. To my surprise, when he mentioned my judgment in the Zachary case, Benka showed no sign of embarrassment, apparently completely unaware that Zachary's book was recently published to widespread praise and attention. The vast majority of books are not reviewed anywhere, but Zachary's Endless Frontier: Vannevar Bush, Engineer of the American Century (The Free Press, 1997) was both widely and positively reviewed by well-respected experts writing in major publications. (Please read the attached reviews.) Apparently, the official Physics Today line now is that Zachary managed to hoodwink major American publications and experts -- but not Physics Today. Again, because my advice was not followed, Physics Today readers missed out on what surely would have been an interesting article. Yet I am the one whose judgment is being questioned -- for reasons that I will explain below.

I ask that my performance review be corrected so that my judgment, and its value to the magazine, is discussed positively rather than negatively. I would like my work on the Zachary proposal to be mentioned as an example of the fact that I offer ideas of merit even though I am not expected to be a major source of article or story ideas. I ask that the numerical rating be raised to reflect the new positive evaluation, and that the rating be above average to reflect the fact that I offer more than the required advice. I request that AIP make this change not just to make my performance review more honest, but more importantly as an implied announcement that AIP will no longer prejudice performance reviews against employees who raise awkward workplace issues.

Additional comments

In the handbook that is given to all employees, the American Institute of Physics promises that the annual performance review will feature a discussion of "mutual goals." (Employee Handbook, page 18.) Without explanation, this year Benka followed neither the letter nor the spirit of this policy, and didn't even pretend to be interested in what direction I might want to go in my work at AIP. The discussion was unlike anything I have experienced in previous years. He simply announced a big change in my job description -- an increase in my workload by as much as

three months' worth of work per year -- and discussed it as if he were giving orders to a machine. Over the years my job description has changed many times (the most recent change being on 25 August 1997), but never by unilateral management dictate, without discussion and mutual agreement. For reasons that I will explain below, I think this change, and its unilateral imposition in violation of American Institute of Physics policy and usual practice, is punitive.

The written review accurately calls the change "new demands." But it inaccurately implies that other Physics Today staff members are meeting such new demands. My coworkers have experienced no such major increases in their workloads either voluntarily or by management order (except in one or two cases in which individuals have voluntarily renegotiated their job descriptions, job titles and salaries). My coworkers and I work hard and cannot reasonably be expected to take on additional work. Among my coworkers who have not stepped up their workloads are Gloria Lubkin, Barbara Levi, Bert Schwarzschild, Charles Day, Irwin Goodwin, Carol Lucas, Toni Feder, Jean Kumagai and Warren Kornberg.

The 25 August 1997 agreed-upon change in my job description reduced my article editing work to 70% of my time (14 articles per year) so that I could increase my work in other areas, which I have done. Now, just a few months later, AIP is using my performance review to arbitrarily increase my annual article editing load to 18 -- a 28 percent jump. The performance review also changes my job description to add a significant load of clerical work (keyboarding) to my job for the first time in my 17 years at the magazine. Other editors who work better on paper (for example, the book review editor and the copy editor) are not being told to change the way they work or to take on the associated clerical work. This clerical work, which includes keyboarding the dozens of changes made by the copy editor, could take as much as a few days per month, depending upon the article. It would lower the overall efficiency of work at the magazine, because the time spent on clerical work would, of course, reduce the time available to do other work such as article editing and article solicitation; instead of paying $15/hour for clerical work, AIP would pay $30/hour. Like many people, I do better work on paper than on a computer screen (and a long-standing back problem precludes long sessions sitting in front of the screen anyway). I ask that support staff be made available once again. Even if management had a valid reason for adding clerical work to my job, that reason cannot be a new one. What <u>is</u> new is that, <u>for</u> reasons discussed below, management has suddenly gotten "on my case" and is taking a hard-line on every issue.

In Benka's <u>pro forma</u> discussion with me about my performance review, he never asked about the direction in

which I would like to go on the job. If I were able to take on additional work, I would like that additional work to be somewhat different from what I am doing now, to provide some variety and to contribute to the magazine in a different way. When I explained this to Benka, he acted uninterested and reasserted his uninspiring, unilaterally developed plan for me, which is to do the same work, only a lot more of it.

Reprisal and repression

The American Institute of Physics is making a strong effort to prevent Physics Today staff members from pursuing workplace grievances in an organized way. Problems are to be discussed with managers on an individual basis only, we have been told. (Message transmitted to staff through warnings to Graham Collins and in other ways.)

Physics Today staff members have many legitimate concerns. Many believe, for example, that the company fails to provide conditions of employment appropriate for professionals. According to my philosophy, if there is a problem, then everyone who is in a position to address it has a moral obligation to do so. Thus, problems at the magazine are everyone's business -- the business at least of everyone who works there. Even though management doesn't see it that way, I have always tried to do whatever I could to help solve problems that arise, whether or not they affect me directly. You, too, are in a position to do something about the problems at the magazine, and therefore I think you have an obligation to do so, for the sake of both the magazine's staff and the physics community.

During the discussion of my performance review, Physics Today editor Stephen Benka condemned my organizing activities at the magazine and said bluntly that such activity "is not going to be tolerated anymore." He characterized the staff actions in which I have played a leading role as nothing more than "disruptive," rejecting my view that the source of the problem is management's failure to address staff grievances. A workplace in which unity is discouraged, as it is now at the magazine, is disruptive. The low morale, the inability to confront problems, the loss of talented and dedicated staff due to a love-it-or-leave-it atmosphere -- these consequences of management policy are disruptive and wasteful.

Physics Today publisher Charles Harris has made it clear to me and to many staff members (names withheld) that our activities have infuriated him. And American Institute of Physics Executive Director/CEO Marc Brodsky has characterized some of my activities, presumably reported to him by Harris, as "counterproductive" (20 March 1998). It is clear that Benka's hard-line attitude toward me is an attempt to redress Harris's and Brodsky's grievances with

the staff -- in particular, with those staff members whom Harris has identified as ringleaders. (Harris's ringleader theory insults the staff, because it implies that staff grievances arise not because of real problems in the workplace, but because an evil few have corrupted the minds of happy but gullible staff members and led them astray like children.)

In this memo I will be open about my organizing activities at Physics Today, because the problems at the magazine call for an organized response and because the physics community strongly supports physicists' right to organize without fear of reprisal. The latter point is evidenced, for example, in the community's many years of support for Soviet physicists who were punished for organizing, and in its concern today for physicists in other countries who face similar repression. In any case, freedom to address workplace problems is a necessary component of a truly democratic society.

Management is attempting in two ways to prevent the Physics Today staff from pursuing collective grievances -- by punishing those who speak out the most and by maintaining an increasingly repressive workplace atmosphere. My lower performance rating and subjection to an arbitrarily revised job description that makes "new demands" are punishments for taking up staff grievances. What follows is a discussion of a few of the collective staff activities in which I played a leading role and for which management criticizes me. Included is a discussion of some of the repressive measures that management has taken in response to those activities. The discussion should make it clear that my review is only one part of a series of recent attempts to stop me from promoting or engaging in any concerted staff activity.

1996 retreat

During the discussion of my performance review, Benka criticized me for my activities around the 19-20 November 1996 Physics Today retreat. Before that two-day meeting, I and some coworkers (names withheld) developed and distributed to the entire staff a list of changes that we wanted made at the workplace. We presented these requests in the form of a proposed agenda for the retreat. Fearing reprisals for making requests that might not please management, we did not disclose our names. However, the fact that I played a leading role was known to all. Job security was our highest priority, and so our demand for that topped our list. (See item 1 in attached document of 15 November 1996.) Other requests included staff involvement in workplace dispute resolution (item 4), better distribution of job tasks (item 5), affirmative action in hiring (item 8), and conditions of employment appropriate for professionals (the other items).

Salary equity

I worked with other staff members to demand pay equity at Physics Today. On behalf of those of us who were pushing for this, I told the Physics Today advisory committee at their 4 October 1996 meeting that the large salary differentials among the staff were not only unfair, but also divisive and bad for morale and productivity. I raised the issue at various staff meetings as well. Management was not pleased by the pressure we applied, in part because it forced them to give a staff member (name withheld) a special 25% salary increase, beginning on 1 June 1997.

Affirmative action

Management's anger at me increased dramatically, and never subsided, when I worked with Jean Kumagai and other staff members (names withheld) to assert the need for equal opportunity and affirmative action in hiring at Physics Today. We raised the issue when Ray Ladbury left the magazine, creating an opening on the editorial staff. (His replacement, Charles Day, started work on 2 June 1997.) I spoke out strongly on the equal opportunity and affirmative action issue, because Jean and I and the others didn't think Physics Today or AIP management took it seriously. Our concerns were largely ignored, and so, later in the year, we decided to bring the problem to the attention of the Physics Today advisory committee at its annual meeting, held 17 October 1997. On behalf of the concerned staff members (names withheld), I brought the matter to the committee's attention.

One week later, on 24 October 1997, American Institute of Physics Executive Director/CEO Marc Brodsky called me and said that I had made "a very, very serious charge." (Detailed notes available.) He directed me to meet with him and defend my charge, and I did so on 5 November 1997. At that meeting I gave Brodsky a note summarizing the important points. Rather than repeat those points here, I am attaching a copy of the note. (See note of 5 November 1997.) That note is an important part of this appeal about my performance review, and so I ask that you read it.

At my meeting with Brodsky I also pointed out that AIP had failed to conduct the affirmative action training that it promised to conduct in its 284-page "1996 Affirmative Action Program for American Institute of Physics." (See attached excerpts.) Among the many promises that AIP makes in that 1996 document is that "During the current plan year we will be conducting training for all employees about our affirmative action program and equal employment opportunity in the workplace." I pointed out to Brodsky that AIP did not conduct the promised training. He countered by saying that he was pretty sure that he mentioned affirmative action either at the one-hour question-and-answer session that he

held on 20 June 1996 or at the Q&A meeting that he conducted for employees at AIP's facility in Woodbury, New York. (I recall no such mention at the 20 June 1996 College Park meeting.) He indicated that this mention was the promised affirmative action "training."

Brodsky said he would look into affirmative action at Physics Today and tell me what he found. After a 4.5-month investigation, he met with me on 20 March 1998 and reported that he found that Physics Today's affirmative action program was doing very well. He said he judges the program by its results. (This was mysterious, because as of 20 March 1998, the Physics Today staff in the College Park office was all white; out of a staff of 18, the magazine had only one minority employee, working from New York.) I asked again about the promised affirmative action training. This time he said he was sure that he had mentioned affirmative action at both 1996 Q&A meetings, and he again indicated that such mention was the promised affirmative action training. After extensive questioning, he said that such mention was "part of" the promised training. I asked him when the rest of the training would be done, and he promised to look into that. In the end, I told Brodsky that we still believe our concerns to be well founded and that we are disappointed with his response. Apparently in Brodsky's view, however, the upshot of what happened is that I leveled serious, totally unfounded charges at AIP, and he is not happy about that.

1997 retreat

Management's anger at me increased yet again (and has not decreased since) when I helped raise staff concerns before and during the 25 September 1997 one-day Physics Today retreat. Before that meeting, I played a leading role in producing a list of proposed agenda items that represented a few of the many staff concerns. A majority of the staff supported it, and half of the staff signed it. (See attached e-mail message of 18 September 1997.) The top item on that list was a request for greater staff participation in decision making. The days leading up to the meeting saw much debate between management and many staff members over the meeting agenda, which management was formulating. Harris became upset that the staff wasn't embracing his agenda, and he began treating me and my coworker Graham Collins as ringleaders on the staff side, apparently becoming permanently angry at us.

At the retreat itself I asked if staff members could ask questions. Harris said no. I then said that I thought that we <u>should</u> be allowed to ask questions. Harris angrily said "No, That's an order!" Some days after the meeting he explained that he thought my request for the right to ask questions was another attempt to promote the staff agenda. At the retreat and in subsequent weeks, a number of brave

coworkers openly criticized Harris for the way in which he shut me up.

Gag order

After the retreat Harris put a gag order on me, handing me a written "notice" that implied that I would be fired the next time I said anything that Harris considered to be "counterproductive." (Document dated 26 September 1997 withheld.) This outraged many of my coworkers, who saw my forced silence as against their interest. They openly criticized the gag order, forcing Harris to rescind it. (Electronic mail message of 2 December 1997 withheld.) He did so reluctantly and without any decrease in his anger toward me.

Appeal to advisory committee

The gag order was just one of many management actions that strongly discouraged staff members from raising grievances of any sort. In an effort to get this chill lifted, a number of staff members (names withheld) decided to appeal to the Physics Today advisory committee at its annual meeting on 17 October 1997. We made our appeal to the committee, which reports to AIP's top management, in writing (memo of 17 October 1997 withheld) and in individual oral presentations. Our written note was titled, "Freer Atmosphere Needed at Physics Today" and began, "At Physics Today there is an increasingly repressive atmosphere that discourages staff initiatives...." The memo described how Physics Today staff member Graham Collins had also been warned about speaking up about workplace problems. It contained the following paragraph: "Both Jeff and Graham have been outspoken about problems that many of us see at the magazine. We feel that the lecture to Graham and the written notice to Jeff both contribute to a repressive atmosphere at the magazine and restrict all of us. We hope the advisory committee will do whatever it can to get these warnings retracted, and to remind the PT managers that repression is counterproductive. Such steps would go a long way toward diminishing the fear that staff members now associate with trying to openly address problems at the magazine."

Harris has harshly criticized me for my leading role in the presentations to the advisory committee, telling me and others (names withheld) incorrectly that I tried to get him fired. He sees this as an unforgivable offense that obligates him as a matter of manly honor to fire me or eventually drive me out and that gives him the moral right to do so by any means. Those means include steps that appear honest to outsiders but are not -- such as the present performance review, which imposes an unattainable goal that can be used against me a year from now when it has

not been met. When I explained to Harris that neither I nor the other staff members involved tried to get him fired or even wanted that to happen, he replied that I was either naive or lying. (I still do not want him fired, but I can no longer speak for others on this point. Respect and support for Harris by other staff members, including some not involved in our collective activities, have deteriorated sharply.)

Ban on my private conversations

In pursuit of his agenda, Harris has evidently given Benka license to go after me and other perceived management enemies on the staff. I will briefly describe here a recent example. (A more detailed account is available.) At about 6 pm on Wednesday 28 January 1998, I was in my office talking to my coworker Toni Feder on the telephone when Benka opened the door and asked rudely and sarcastically if I was talking to one of our authors. I said, "No, I'm talking to a coworker, Toni." He acted as if he already knew that. He stepped further into my office and said that he wanted in on our conversation. This was unprecedented and frightful. I switched Toni to the speakerphone and told her that Stephen Benka was here and wanted to be in on our conversation. She sounded equally shocked. Benka suggested that she walk over from her office to mine, and she said OK. I then walked out of my office and into the open area of desks just outside, and Benka followed. I did this to make room for Toni and to get some physical distance between myself and my supervisor, who was clearly behaving very strangely.

After Toni arrived, Benka asked us what we had been talking about on the telephone. I thought his question was way out of line, but I answered it anyway: We had been discussing the May 1998 50th anniversary issue of Physics Today. But after giving that short answer, I said that the important question is why he was trying to barge in on our conversation.

He answered by announcing that Physics Today management is forbidding all private conversations between staff members at work. From now on, all conversations between staff members must be open to management supervision, he said. When I asked him why, he referred to the organizing activity that took place last year and said that he doesn't want that to happen again. This smelled like a retaliatory and repressive policy aimed primarily at me, and so I asked him whether or not it applies to everyone. He said it does. I didn't believe him (but I didn't say that I didn't believe him), and so I pressed him three or four times to say whether or not he was going to announce the new policy to the rest of the staff. His final statement was that he knows that I want to know that.

The policy was never formally imposed on the rest of the staff, of course. But news of management's anger at private conversations spread quickly throughout the staff (yes, by way of private conversations). Even though the totalitarian policy officially applies only to me and Toni, it has put a chill on everyone's expression and has contributed to the repressive atmosphere at Physics Today.

Physics Today loses Graham Collins

In this memo I have for obvious reasons focused on my own case. But I don't want to leave the impression that management is critical only of me. In fact, they target any employee who speaks out about workplace problems. My most outspoken coworker, Graham Collins, was also the subject of a gag order and other reprimands for saying what many on the staff were thinking but were afraid to say. (Graham's gag order and mine were lifted at the same time.) I won't explain here how management irresponsibly made leaving the magazine Graham's best option. The details are available elsewhere. But with permission from Graham and all involved, I am attaching a copy of a note to Graham that I helped write after he submitted his resignation. (See attached note of 16 March 1998; authors' names withheld.) Please read the note as an integral part of my performance review appeal, as it contains a number of important and relevant points not made elsewhere.

'On my case'

As I mentioned above, management is now "on my case," and so my work is now subjected to greater scrutiny. Without precedent, the magazine's management recently examined and criticized some of my work before I completed it. (That was my work on the first of the five decade sections for the May 1998 50th anniversary issue of Physics Today.) Ever since the 1997 retreat, Physics Today publisher Charles Harris has given me the impression that I am being monitored. After the retreat he attended almost every magazine department meeting that I attended -- meetings that he had only rarely attended in the past. After some meetings, he commented privately to others about my performance.

Your moral responsibility

Physics Today's new love-it-or-leave-it policy, mentioned in the 16 March 1998 note to Graham, implies that the magazine's problems originate in the staff. Keeping the focus on the staff is not simply a harmless way that management diverts attention from itself, but is extremely costly. In the short time since Graham submitted his resignation, editor Benka's assistant Susan Funk has quit in frustration, and publisher Harris's assistant Carol Lucas has resigned. The loss of experienced staff, the

discouraged state of many of those who remain, the repressive atmosphere's toll on creativity -- in general, the frustration of those who want their job to be more than a simple exchange of time for money -- in these and other ways current policy wastes the resources of the physics community. You have a responsibility to undo the current widespread cynicism at Physics Today by making staff-initiated change possible.

5/5/98 I just learned from Barbara that Jeff sent her a copy of his lengthy response to his performance review, even though she told him she didn't want it and didn't want to be involved. Presumably he sent a copy to each staff member (except Charles, Gloria, and me).

To: Jim Stith 11-15 June 1998
From: Steve Benka

This is my response to those parts of Jeff Schmidt's memo of 27 April 1998 that are aimed primarily at me, or that I feel very strongly about. The numbered paragraphs correspond to the circled numbers in the attached copy of the memo.

(1) Jeff and I had both agreed to at least one change in our initial discussion of the review. We agreed to change "imminent fatherhood" to "cancelled paternity leave." His allegation is unfounded. I am still open to making other changes, but many of his other requested changes would be inaccurate.

(2) The first I had heard of Jeff being engaged in any "organizing activity" was from Jeff, in our discussion of his performance review. His claim that the review is punitive for such activities, of which I was unaware, is unfounded. That is not to say that I was unaware of his influence over others on the staff, but that is a long way from "organizing activity" and I for one never made that leap, nor did it ever occur to me to make such a leap. When he first mentioned it to me, my first words were, "What organizing activity?" Both Toni Feder and Paul Elliott deny that there was any "organized activity."

(3) I am always open to discussion about reviews, and to making warranted changes as a result. Jeff knows this full well from his previous reviews. As noted above in (1), at least one change had already been agreed to before discussions ended.

(4) Jeff's timeliness is excellent. Adopting Jeff's wording, however, would misrepresent his work. The statement in the review is both positive and accurate. The Mourou article (1/98) closed on day "zero," whereas articles are scheduled to close no later than day "minus one." The Libicki article (9/97) closed on the map day, day "minus nine," indicating that it was ready very early. I'll be happy to note that in the review.

(5) Jeff did at best the same amout of work as last year. By his own counting, he did significantly less. See (8) below.

(6) It's not clear what Jeff's accusation is here. He seems to think that getting the next magazine out should not be a top priority. It is. Working ahead is also a high priority, as I've repeatedly made very clear to all members of the staff, starting with my very first staff meeting in 1994. Jeff seems to be complaining about being given the freedom to do that, while at the same time boasting about having invented the concept and somehow manufactured the necessary freedom. This whole paragraph is confusing, but it leaves the impression that the entire magazine exists to serve his needs..

(7) Jeff's memo is a red herring, as my reply to it made clear. He makes no mention of the fact that he had asked for paternity leave and requested that he be divested of all articles. I accommodated his request. After we had made the necessary internal adjustments to keep the article pipeline flowing, he changed his mind, cancelled his request for paternity leave and insisted

on being given ready-to-edit articles so he could meet his production goal.

[My interpretation of his memo (and general attitude), both then and now, is that Jeff is attempting to transfer the responsibility for any and all problems (real or imagined) to management. I believe his basic premise is that employees are virtually flawlwss while managers are so flawed as to have no hope for redemption.]

(8) The adjustment to Jeff's job description was intended as a (largely artificial) way to arrive at the "mutually acceptable state of affairs" I had mentioned in my reply to his memo of 8/18/97. The idea, as I had made clear to him, was to reduce his production goal to one that he could meet, following the foundered paternity leave request. Even so, he came up short. I feel it is fair to include his work on Goldstein, which was completed during this review period, but not published. In addition, although Jeff had at one time indicated it could easily run as a single, long article, we ultimately decided to split it in two --- and I gave his credit for two in his performance review. Thus, in my view, Jeff met his reduced production goal. [By his own count, however, he came up two articles short and should therefore have his rating lowered from 3.0 to 2.0 or 2.5. I am opposed to that.]

(9) The (personal) reason given was correct. His request for paternity leave is easily verified with Human Resources: Susan Funk had looked into getting the needed paperwork done.

(10) There was nothing "secret" about my actions. Jeff was not in the office, so I left my draft of his new job description in his mailbox. When he returned, he asked for and received a note saying that this job description would go into effect immediately. He certainly didn't register any complaint about "secret alterations."

(11) I didn't respond to Jeff's memo of 9/2/97 because I saw it simply as an attempt to bait me. His version is that my lack of response means I don't dispute its contents, whereas in fact I found it (then and now) to be false and misleading, and only worth taking time out from the magazine's business if so advised or directed. Charles advised me not to reply and I happily agreed.

(12) Jeff did a good job on the Parsegian article, which filled a hole in the editorial calendar (not in the magazine). That is, there *was* a minor crisis when the article on biological physics that I had targeted for that issue (in order to fulfill the editorial calendar) needed to be postponed one month. [It's not a disaster if we fail to meet the editorial calendar (though Advertising doesn't like that); we just put a different article in the magazine and point out the disclaimer in the Media Kit.] I would be happy to mention Jeff's good work in his review, though I won't inflate it quite as much as he does.

(13) Jeff is correct that the list of articles he turned down could appear elsewhere. I put it where it is as evidence that he could have met his performance goal had he so chosen. It can also go under Major Responsibility 3, as evidence that he does not support the overall editorial effort of PT. I would be happy to move it there.

(14) The Mourou article would not have been excellent, it would have been wrong. Jeff had made several errors of notation (using lambda instead of gamma) and of physics (incorrect

expression for relativistic mass) that no proofreader would have caught.

(15) The issue is not advice, but supporting the editorial effort of PT. Throughout the year (and in fact for many years) Jeff has agitated the staff and sowed discontent and poor morale without cause. He had gotten so out of hand that he was reprimanded on 10/1/97. That reprimand was later rescinded (on 12/2/97) with the understanding that we would all behave ourselves. Within a week or two of then, however (the date is uncertain as I failed to write it on the documentation), Jeff had roused Warren Kornberg to anger with false charges against me. That incident could surely be noted on his review. A second example is typical: On 11/26/97 he asked Susan Funk to do some of his clerical work, though he knew that wasn't her job and that I had repeatedly asked him to do such work himself. A short time later Jeff put a note (enclosed) in my mailbox. Susan came to me and was very upset that she had to do his work. In my opinion, Jeff's actions in this instance (and in many others) are aimed at supporting Jeff, not the editorial effort of PT.

(16) It is true that I told Jeff he needed to do more. He said he wanted to grow in other directions at the magazine, such as reporting. I said that would not happen while I was the Editor. I reminded him that he had gone digging for information on the Physics department at the University of Maryland, and that that unauthorized "reporting" had nearly caused a deep rift between PT and that department. See my memo to Marc Brodsky.

(17) Jeff is mistaken that others haven't been asked to step up their workloads, and did so. For example, in 1995 Bert Schwarzschild was asked to increase the number of Search stories and edited articles that he produced, and he did so. Together with the number of stories and articles he pursues that don't check out (a common occurrence), Bert is fully engaged, or very nearly so. Jeff, who is not asked to check out stories or potential articles, in my opinion is not fully engaged.

(18) This is gross misrepresentation of what happened. As noted above in (2), I had no knowledge of "organizing activities." What I indicated would not be tolerated is disruptive and counterproductive behavior. This is typical of Jeff, putting his words into someone else's mouth, then accusing that person of saying those words. It was my opinion during that discussion with Jeff (and remains my opinion) that his claim of "organizing activities" is little more than a smoke screen to protect himself.

(19) I have no idea what Jeff is talking about here. I have no knowledge of any grievances of Charles Harris or Marc Brodsky that the performance attempted to "redress."

(20) Jeff's assertion that affirmative action turned management against him is without foundation. At the 1996 retreat, I scheduled this topic high on the agenda because, as I told the staff, I thought it was a "no brainer." Subsequently, I happily and willingly took steps, unprecedented at PT, to pursue affirmative action. See my email to Melinda Underwood and Jean Kumagai's supportive response after I informed the staff of what I had done. I don't understand Jeff's allegation.

(21) I made no such statement. My account of the events, written over that evening and the next day, is attached.

(22) This is a matter for next year's review, but notes and documentation are available.

Concluding thoughts:

This document and assembled package of materials has taken an enormous amount of my time and energy, time and energy much better devoted to the magazine and to my family. Others' time and energy has also been usurped.

In my opinion, Jeff's "response" to his performance review is a mixture of fabrication, wishful thinking, and manipulative misrepresentations. In my opinion, it was deliberately calculated to cause as much mischief as possible for management, not just of PT but for all of AIP, while keeping himself as protected as possible.

I now know that Jeff surreptitiously distributed his highly inflammatory "response" to at least two members of the PT staff (one of whom, Barbara, told Jeff she didn't want it but he sent it anyway). Probably more than two received it. In my opinion, that was a deliberately malicious act, targeted at management, with no possible constructive goal. In my opinion, that action alone is grounds for termination with cause. At the very least, I believe Jeff should be reprimanded and that the reprimand not be rescinded.

I can handle the pressures of the Editor's seat. I find it very difficult, however, to pretend that Jeff is a constructive, helpful member of the PT staff.

AMERICAN INSTITUTE OF PHYSICS

INTER-OFFICE MEMORANDUM

TO: Jeff Schmidt

FROM: James H. Stith **EXTENSION:** 3126

DATE: June 24, 1998

SUBJECT: Performance Review 1998

As requested in your memorandum of 27 April 1998, I have completed my investigation of the issues surrounding your 1998 performance review.

While issues that have impact upon the climate within **Physics Today** were uncovered, I did not find sufficient reasons to justify a change in your 1998 performance review.

I trust that you and the management of **Physics Today** will be able to delineate clearly the goals, level of performance and criteria for evaluation that will determine the basis for your 1999 review. Once this is accomplished, I anticipate a return to a level of performance and an evaluation that both you and management find satisfactory.

Cc: Theresa Braun
Steve Benka
Charles Harris

September 2, 1998

Jeff,

Consistent with the performance plan laid out in your last review, you need to complete 8–9 more articles in this review period (by the end of January 1999).

Also, please remember that constructive, helpful, collegial behavior is expected of everyone, and disruptive behaviors cannot be tolerated. Your participation in yesterday's articles meeting was a good example of providing "helpful support to the overall editorial effort of the magazine." Keep it up.

Consistent with your last review,

PERFORMANCE REVIEW, 1998--99 March 15, 1999

Name: Paul Elliott Job title: Articles Editor
Branch/Division: Physics Programs/*Physics Today* Reports to: Editor
Period of review: Mar 1998--Feb 1999 (PT issues April '98--March '99)

BRIEF DESCRIPTION OF JOB DUTIES:
Produce the monthly Letters to the Editor department. Copyedit editorial material for *Physics Today*. Perform other editorial functions.

Major Responsibility 1: Produce the monthly Letters to the Editor department.
Weight: 45% Rating: 4.0 Score: 180.0

Major Responsibility 2: Copy edit editorial material for *Physics Today*.
Weight: 40% Rating: 3.5 Score: 140.0

Major Responsibility 3: Perform other editorial functions.
Weight: 15% Rating: 3.5 Score: 52.5

APPRAISER'S COMMENTS:

The Letters department, under Paul's guidance, has become one of the most popular and appreciated departments in the magazine. His production of this department was good during this period; for 8 of the 11 issues (there was no Letters department in the May 1998 50th Anniversary issue) it closed ahead of the magazine's deadline. In addition, since the departure of an administrative assistant in March '98, he has taken on ~~many of~~ the administrative duties of the Letters department, and kept it running smoothly. Still, there is some room for improvement, and Paul should strive to regularly close this department at least four (and preferably six) days prior to the magazine's deadline.

As a copyeditor, Paul adds real value to the magazine. His editing ranges from the smallest of stylistic corrections to substantive suggestions for changing the content or flow of a piece. His turnaround time needs to be quicker, however, so as to better facilitate the magazine's production. The situation could be helped by closing the Letters earlier in the monthly cycle, as noted above, to free Paul up for needed copyediting of news departments late in the cycle.

Paul's participation in staff meetings is always welcome, and he often has innovative ideas for addressing editorial or procedural issues. He helped greatly with the 50th Anniversary issue.

Overall Score: 372.5 Overall Rating: 3.7

Employee's Comments:

From: Lars Falk <lfalk@sto.foa.se>
To: "Paul Elliott (Paul Elliot)" <pelliot@aip.org>
Date: Wed, Mar 17, 1999 4:41 am
Subject: Re: Falk Letter to the Editor (Physics Today)

Dear Dr. Elliott,

. . . . It is perhaps worth mentioning that the Letters section of Physics Today is one of my favourites along with the book reviews. The popularity and usefulness of a journal can often be measured by its Letters section.

Best regards

Lars Falk
National Defence Research Institute (FOA)
Stockholm, Sweden

SIGNATURES:

Employee: Paul Elliot Date: March 17, 1999

Appraiser: Steve Benka Date: 3/15/99

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review: Jonathan J. Goodwin Date: 3/26/99

AMERICAN INSTITUTE OF PHYSICS
PAYROLL AUTHORIZATION FORM B

EMPLOYEE PAUL ELLIOTT DIVISION PHYSICS TODAY
EMP. NO. 4033 SSN: [redacted]

REMARKS: ANNUAL REVIEW

SALARY CHANGE INFORMATION:

Position Title	Grade	Current Range			Effective	Next Review
ARTICLES EDITOR	E07	44050.00	57900.00	71750.00	4/1/98	4/1/99

Previous Salary	Amount of Increase	New Salary	Percent Increase
58500.00	1300	59800	2.2

Quartile:	Amount of Previous Increase	Previous % of Increase	Overall Rating:
3	2500.00	4.46	3.0

TITLE CHANGE INFORMATION

From: ARTICLES EDITOR To: _____ Effective: _____

New Grade: _____ New Range: $ _____

TRANSFER

From: PHYSICS TODAY To: _____ Effective Date: _____

Steve Benka	cek	[illegible]
Recommending Party	Authorized Approval	Personnel
Date: 3/9/98	Date: 3/11/98	Date: 4/27/98

MISCELLANEOUS REMARKS:

PAF Created by: APRREVIEWS JPW

D01485

6/14/99 Jeff and I started to discuss his job expectations, and mine for him.

He still wants to "appeal" my insistence on 18 articles per year.

We agree in principle to what he characterized as a "vague" expectation that he make "positive" contributions to the office climate, editorial processes, and content of PT.

I pointed out that this calls for some changes in his behavior from last year, prior to his Sabbatical, in which many of his actions were "decidedly not positive."

We agreed to talk further about these things on Friday, 6/18, or Monday, 6/21.

AMERICAN INSTITUTE OF PHYSICS

INTER-OFFICE MEMORANDUM

TO: Paul Elliott

FROM: James H. Stith EXTENSION: 3126

DATE: June 24, 1998

SUBJECT: Performance Review 1998

As requested in your memorandum of 28 April 1998, I have completed my investigation of the issues surrounding your 1998 performance review.

While issues that have impact upon the climate within **Physics Today** were uncovered, I did not find sufficient reasons to justify a change in your 1998 performance review.

I trust that you and the management of **Physics Today** will be able to delineate clearly the goals, level of performance and criteria for evaluation that will determine the basis for your 1999 review. Once this is accomplished, I anticipate a return to a level of performance and an evaluation that both you and management find satisfactory.

Cc: Theresa Braun
Steve Benka
Charles Harris

PERFORMANCE REVIEW, 1997--98 March 9, 1998

Name: Paul Elliott Job title: Editor
Branch/Division: Physics Programs/*Physics Today* Reports to: Stephen Benka
Period of review: Mar 1997--Feb 1998 (PT issues April '97--March '98)

BRIEF DESCRIPTION OF JOB DUTIES:
Produce the monthly Letters to the Editor department. Copyedit editorial material for *Physics Today*. Perform other editorial functions.

Major Responsibility 1: Produce the monthly Letters to the Editor department.
Weight: 45% Rating: 2.5 Score: 112.5

Major Responsibility 2: Copy edit editorial material for *Physics Today*.
Weight: 40% Rating: 3.5 Score: 140.0

Major Responsibility 3: Perform other editorial functions.
Weight: 15% Rating: 3.5 Score: 52.5

APPRAISER'S COMMENTS:

The Letters department is widely read and widely praised, in large measure due to Paul's editing and assembly of the letters. His production of this department, however, slipped significantly during this review period. He has consistently delivered Letters well after his deadline (varying from 3 to 7 days late; the one exception was the 10/97 issue, which he prepared on time). He recognized his lateness, and formulated a plan to address it beginning with the January 1998 issue, but there is no noticeable difference. In addition, Paul can been very slow to process individual letters, and at times has failed to seek the responses indicated by the reviewers.

Paul's copyediting remains very good, though his turnaround time could be quicker.

Paul is a capable member of the PT team. He needs to find more efficient ways to work, so as to complete his tasks on time without sacrificing the high quality for which he is known.

Overall Score: 305.0 Overall Rating: 3.0

Employee's Comments: This review is a rank travesty. It ignores my contributions to PT and instead alleges — without plausible justification — that my work has declined in both quality and timeliness since last year. It maladroitly distorts reality through the use of error, omission, distortion, insinuation, and faint praise. It reflects Steve Berka's failure to conduct the review in accordance with the procedures stipulated in the AIP employee handbook for both the review meeting itself and employee-manager relations over the year. It is being wielded as a weapon of punishment by a manager who clearly has little or no understanding of the role of a manager in supporting and encouraging staff members — or of the fact that one of the traditional principles of good management is that at performance-review time, there should be no surprises for either party. It is vindictive in that another editor ~~[illegible]~~ with a late-closing is late in closing. I am still preparing a detailed response to Steve's charges; I am not through doing that in part because the May issue of PT and I have work to do. But I'll forward my memo when it's ready.

SIGNATURES:

Employee: Paul Elliott Date: April 15, 1998

Appraiser: Steve Berka Date: 3/12/98

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal. Hardly. Steve sat down with me for the first time in a year and told me that I had been a bad person! PE

H.R. Review: [illegible] Date: 4/15/98

department has just received a higher rating than I have here, even though her department accounts for 90% of her work responsibility, whereas my department accounts for ~~[illegible]~~ only 45% of mine. I believe I am being penalized by a manager who prefers to scapegoat the editors rather than face up to his failure to solve the central problem that he inherited at PT — almost four years ago: the PT cultural tradition of playing brinkmanship with the monthly deadline. An experienced and skilled manager with problem-solving skills, a modicum of creativity, and the ability to understand, direct, support, and motivate employees would surely have welded this fractious staff into a harmonious and upbeat team by now (most of my employee has been in a supervisory capacity).

From: Stephen Benka
To: Jeff Schmidt
Date: Thu, Aug 5, 1999 2:53 PM
Subject: Schucking and Birnbaum

Jeff,

Bert says that he will be able to produce both Barish and Schucking for the October issue. Therefore we will use the Birnbaum article in the December issue.

--Steve

CC: Bert Schwarzchild

I had asked Jeff on 3 Aug. to try to have Birnbaum ready for Oct., in case Bert couldn't complete Schucking (and Barish and Search stories...).

Jeff said he didn't think he could do it, even though the Will article was ready for his editing. I suggested that Will should be ready for copyediting by Friday (this was Tuesday). He was sure it would take longer. I pointed out that our freelancers have a cap of 40 hours per article, and haven't needed more than 30. Thus, he should certainly be able to edit an article within a week. With very rare exceptions (eg. Segev and Stegeman) it should never take more than a week's work.

—Steve 8/5/99

D00495

PHYSICS TODAY August 13, 1999
PERFORMANCE REVIEW 1999

Employee Name: Jeff Schmidt Job Title: Senior Associate Editor
Division: Physics Today Reports to: Editor
PERIOD: Feb 1998-Aug 1999 (PT issues March '98-Sep '99) - incl. 6-mo. sabbatical

Major Responsibility 1: Edit articles
Weight: 80% Rating: 2.75 Score: 220

Comments: For this review period, Jeff was asked to produce 18 high-quality articles, and he actually produced 13.5, which is unacceptable. This counts his partial contribution to the May '98 50th anniversary issue as 1/2-article rather than 1, because he had to be removed from the project. Given that one of Jeff's articles (Segev, 8/98) was extremely difficult (just making it publishable was a good accomplishment), and two other articles were assigned to Jeff on relatively short notice, but he nevertheless completed them in time for publication, 17 articles might have been deemed an acceptable number (rating a 3.0). Delivering more than 3 full articles less than that, however, is a very large shortfall, and rates at best a 2.0.

Aside from the anniversary issue, Jeff's editing was satisfactory, rating a 3.5. He still needs to find ways, such as creative rewriting, to better improve the readability of our less talented authors.

Major Responsibility 2: Take responsibility for assigned articles
Weight: 15% Rating: 3.5 Score: 52.5

Comments: Jeff ~~still~~ does well in this area of his job.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 1.5 Score: 7.5

Comments: During this review period, Jeff repeatedly engaged in disruptive and counterproductive behavior, damaging a collegial office climate and thereby undermining the editorial effort of *Physics Today*. Such behavior is unacceptable. Two examples will suffice.

(1) As noted above, Jeff was removed from working on the PT Anniversary issue. That was for two reasons: He produced a very unbalanced set of decadal excerpts, strongly centered on political issues, whereas he had been directed to focus on physics excerpts while his non-physicist partner focused on other excerpts. All five decades paired a physicist with a non-physicist in that manner. When his partner pointed out the imbalance and made suggestions to fix it, Jeff rebuffed him, provoking his partner to quit. For his failure to produce excerpts consistent with the stated goal, and for his failure to work respectfully and collegially with a fellow editor, he was removed from the job, which was completed by his partner and another physicist on the staff

who had already completed his decadal excerpts.

(2) Jeff wrote a response to his last performance review, as he is entitled to do. The response was 19 pages long (with another 38 pages of addenda), reacted to out-of-context comments from his review, and dwelled at length on issues not related to his job or to his review. Jeff made no attempt to discuss his response with his manager, but instead surreptitiously circulated it to PT staff members, whether they wanted to see it or not. Such an action seems to actively undermine not only the cohesiveness and morale of the staff, but also the staff's respect for management. Such an action in no way constructively supports the editorial efforts of PT; rather, it destructively undermines such efforts.

Appraiser's comments and Performance Plan: This review covers a 12-month work period, albeit an 18-month calendar period. Jeff took a six-month sabbatical during this review period, from mid-December to mid-June. In the two months since his return, he has worked effectively at his job, and contributed positively in staff meetings.

At Jeff's request, his salary will be reduced by 1/3, and his workload will also be reduced by 1/3, to 12 articles per year. As always, the articles must be of high quality, with Jeff editing and rewriting text as needed. The articles must be consistent with the magazine's standards of readability, accuracy, brevity, and visual appeal. He must continue to handle his own correspondence and do all of his own keyboarding.

In addition, he is expected to provide helpful support to the overall editorial effort of the magazine.

OVERALL RATING: ~~2.8~~ 3.0 **OVERALL SCORE:** 280.0

Employee's Comments:

See attached two-page memo dated 19 August 1999.

SIGNATURES:

Employee: J. Schmidt Date: 19 Aug. 99

Appraiser: Steve Benka Date: 8/17/99

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review: Date:

From: Stephen Benka
To: Jeff Schmidt
Date: Thu, Aug 19, 1999 7:09 PM
Subject: First thoughts on your response to the review

Jeff,

Because you didn't have time to discuss your response to your review when you gave it to me, here are my initial thoughts on the inaccuracies that you perceive. Let's discuss this further as soon as possible.

Your example #1: You neglected to mention that, initially, you had wanted to count Goldstein as one long article, not two. However, because you had completed Goldstein within the previous review cycle, and because you were two full articles short of your already reduced (because of your cancelled paternity leave) production goal for last year, we counted them as two and included them in that cycle. This ensured that you would receive an "acceptable" rating, which was clearly in your best interest.

Each editor who worked on decadal excerpts for the anniversary issue did the equivalent of one full article's work in his or her decade. There would be no reason to count yours otherwise, except that your work on your decade had to be largely redone by someone else.

As of today, to my knowledge, the Will article is not yet completed. If it were, I would count it as an article completed within this review period.

Your example #2: You are right that I should have discussed the change of weights with you. I apologize for not having done so. Let's discuss and agree on your job description as soon as possible.

Your example #3: My description is accurate.

Your example #4: Your appeal to Charles Harris, Theresa Braun, and James Stith was the proper procedure to follow. However, as we discussed earlier today (and at other times), your surreptitious circulation of your response to the staff was entirely inappropriate.

I still would like you to tell me which member or members of the staff you have discussed this year's review with.

--Steve

19 August 1999

To: Stephen Benka, Editor, Physics Today, American Institute of Physics

From: Jeff Schmidt, Senior Associate Editor, Physics Today

Subject: My 1999 performance review (dated 13 August 1999 and signed by you on 17 August 1999)

I was disappointed to find that you wrote my 1999 performance review in the same punitive spirit as my 1998 review. Like my 1998 review, the present review understates or completely leaves out my accomplishments and does not mention the praise that I have received for my work. At the same time, it contrives deficiencies and plays them up. I had thought you had gotten beyond that.

I was also surprised to see that you used an unchanged version of my 1998 review as a starting point for the 1999 review, thereby compounding many serious errors. As you know, in my memo of 27 April 1998 I brought to AIP's attention a number of serious errors in my 1998 performance review — places where statements in the review conflict with the (still existing) written record. AIP did not find fault with any of my corrections, yet you have proceeded as if they had never been brought to AIP's attention.

Hence, not perceiving a genuine interest in accuracy in these matters, let alone fairness, I will not detail here the many serious errors of fact in the 1999 review and the obvious reasons for those errors. I will just make the general statement (and give a few examples) that the 1999 review stands in conflict with the written record as much as the 1998 review did — and for the same reasons, which are detailed in my memo of 27 April 1998. The 1999 review appears to be an extension of the 1998 review: It continues the step-by-step lowering of my appraisal from above average to average to below average, even though the quality and quantity of my work remains as high as ever. Here are the examples:

1. The 1999 review states that I edited 13.5 articles for the Physics Today issues of March 1998 – September 1999. In fact I edited the equivalent of at least 17 articles for those issues: Goldstein, Sullivan, Barth, another article by Goldstein, Ramaty, De Kee, Busch-Vishniac, Hemley, Segev, Bering, Canfield, Vogel, Ertl, Redish, Bernholc and work for the May 1998 special issue amounting to the equivalent of at least two articles. The huge amount of extra work that I did for that special issue was clear to you and to everyone else at the time. I worked day and night to meet the deadline, and you even gave me the AIP "Pat on the Back" award for my "extra effort" and "outstanding performance." (See the attached pages for a copy of the award.) But my 1999 performance review rewrites history to re-estimate the amount of work that I did as the equivalent of editing one-half of an article.

I always work ahead, of course, as magazine work requires, and so I have edited an 18th article (by Clifford Will) during the stated review period (February 1998 – August 1999). However, this article will not be published in the issues counted for my 1999 review (March 1998 – September 1999), and so should not be counted for that review, even though I did the work during that period. Except for my 1998 review, that is how the accounting has been done

on my performance reviews for 17 years, and that is how it should continue to be done unless it is changed by mutual agreement, before the work is done. It is unfair for you to change the accounting method at the end of the review period while you are writing the review, as you did in my 1998 review (see page 4 of my memo of 27 April 1998) and as you did again in my 1999 review, when you reverted back to the long-standing method. Each of these self-serving changes reduced the number of articles credited to me on my 1999 review. The consistent and fair bottom line for my 1999 review is 17 articles, not 18 — and certainly not "13.5."

2. Similarly, it is unfair for you to change my job description after I have done the work. Since 25 August 1997 my three areas of work have been weighted at 70%, 25% and 5% (see your written statement of 25 August 1997, a copy of which is in the addenda of my memo of 27 April 1998.) You altered those percentages while you were writing my 1999 review to 80%, 15% and 5%, lowering my rating. I am particularly surprised that you did that, because I thought you had promised a more above-board management style after I objected to an earlier (19 August 1997), similar action on your part. (For a description of that action, see page 3 of my memo of 2 September 1997, a copy of which is in the addenda of my memo of 27 April 1998.)

3. Your description of the way the work on the May 1998 special issue was organized is incorrect. The editors were told to excerpt "the best of Physics Today" for that issue, and in the decade assigned to me and my partner, that material happened to center on political issues. The staff was not, in fact, required to divide the work along "physics" and "political" lines as you suggest. One pair of staff members, for example, simply divided their decade in half, with each person excerpting the best material from a five-year period. Contrary to what the review says, I did not rebuff or work less than respectfully and collegially with other staff members. In fact, I implemented my partner's suggestions, making major changes in the 8-page section to do so. My partner did not quit as you claim. Your characterization of my work with my partner is an incorrect speculation, a self-serving assumption about what might have happened. If you doubt the accuracy of anything that I have said in this paragraph, you need only ask the staff members to whom I have referred.

4. Contrary to your assertion, I did give you my response to my 1998 performance review. I did so verbally and we discussed it at length. You then consulted with Charles Harris about my request to correct errors in the review, and you refused to do so. I then appealed to Theresa Braun, AIP Director of Human Resources, and James Stith, AIP Director of Physics Programs. Contrary to your claim, there was nothing surreptitious about my not directing that appeal to you or about the fact that others may have seen my appeal. I had already made the appeal to you and had already discussed the issues with you.

These are just a few of the many inaccuracies in my 1999 performance review. They add to the evidently yet-uncorrected inaccuracies in my 1998 review, which should be made to conform to the written record promptly.

Finally, it is discouraging to see that it "seems" to you that I have acted to worsen the staff's morale problems, lower-than-desired respect for management and deficient cohesiveness. This speculation is way off the mark and suggests that you are looking in the wrong place to solve these very serious problems, to the detriment of the staff and the physics community.

We appreciate your outstanding performance.

Steve ceh

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AMERICAN INSTITUTE OF PHYSICS

INTER - OFFICE MEMORANDUM

May 21, 1998

I, Jeffrey Schmidt, hereby acknowledge receipt of a cash "Pat on the Back" award in the amount of $100. I understand that my year-end pay will reflect a "gross up" of this award.

J. Schmidt 23 May 98

Jeffrey Schmidt DATE



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PHYSICS TODAY

GRAVITATIONAL RADIATION AND THE VALIDITY OF GENERAL RELATIVITY

Observing the speed, polarization, and back influence of gravitational waves would subject Einstein's theory to new tests.

Clifford M. Will

While the detection of gravitational radiation may usher in a new era of "gravitational wave" astronomy (see the accompanying article by Barry Barish and Rainer Weiss, on page 44), it should also yield new and interesting tests of Einstein's general theory of relativity, especially in the radiative and strong-field regimes. Consequently, we are in an unusual situation. After all, we rarely think of *electromagnetic* astronomy as providing tests of Maxwell's theory. Neutrino astronomy may be a closer cousin: We can observe neutrinos to learn about the solar interior or about supernovae, while also checking such fundamental phenomena as neutrino oscillations. To some extent, the usefulness of astronomical observations in testing fundamental theory depends upon how well tested the theory is already. At the same time, since general relativity is the basis for virtually all discussion of gravitational-wave detectors and sources,[1] the extent of its "upfront" validity is of some concern to us.

Although the empirical support for the theory of general relativity is very strong, it is still not as solid as the support for Maxwell's theory, and only in the last 35 years or so have precise tests been feasible. Furthermore, general relativity has not been tested deeply either in its radiative regime or in the regime of strong gravitational fields, such as those associated with black holes or neutron stars. (See figure 1.) Most tests, such as those carried out in the Solar System, check the theory only in its weak-field, slow-motion, nonradiative limit. One famous exception, the Hulse–Taylor binary pulsar, does provide an important verification of the lowest-order radiative predictions of general relativity and is sensitive to some strong-field aspects. Still, important tests of gravitational radiation and its properties remain undone. Furthermore, interesting, well-motivated alternative theories to general relativity still exist that are in agreement with all observations to date. Gravitational-wave tests will remain of interest to us to the extent that they can further constrain the theoretical possibilities.

There are three aspects of gravitational radiation that can be subjected to testing:

▷ The polarization content of the waves (general relativity predicts only two polarization states, whereas other theories predict as many as six).

CLIFFORD WILL *(cmw@wuphys.wustl.edu) is chair of the physics department, and a member of the McDonnell Center for the Space Sciences, at Washington University in St. Louis, Missouri.*

▷ The speed of the waves (general relativity predicts a speed the same as that of light, whereas other theories predict different speeds).

▷ The back influence of the emitted radiation on the evolution of the source.

In this article, we discuss the three possibilities. First, though, we review the current status of tests of general relativity.[2,3]

The Einstein equivalence principle

At the heart of gravitational theory is a concept called the Einstein equivalence principle, which modernizes Newton's postulate of the equivalence of gravitational and inertial mass. It states first, that bodies fall with the same acceleration regardless of their internal structure or composition (this piece of the Einstein equivalence principle is called the weak equivalence principle), and second, that the outcome of any local nongravitational experiment is both independent of the velocity of the free-falling reference frame in which it is performed (local Lorentz invariance) and independent of where and when in the universe it is performed (local position invariance).

The Einstein principle implies that gravitation must be described by a theory in which matter responds only to the geometry of spacetime. Such theories are called metric theories. General relativity is a metric theory of gravity, but so are many others, including the "scalar–tensor" theory of Carl Brans and Robert Dicke, a theory based on earlier work by Paul Jordan. Strangely enough, string theory—a leading contender for a unified theory of particle interactions and for a quantum theory of gravity—does not strictly satisfy the metric theory definition. In string theory, matter can respond weakly to gravitation-like fields, in addition to responding to geometry. Consequently, testing the Einstein equivalence principle is a way to search for new physics beyond standard metric gravity.

To test the weak equivalence principle, we can compare the accelerations a_1 and a_2 of two bodies of different composition in an external gravitational field. The resulting measurements will yield the difference in acceleration divided by the average acceleration, $2|a_1 - a_2|/|a_1 + a_2|$, called the Eötvös ratio after Roland, Baron Eötvös of Vásárosnamény, whose pioneering tests of the weak equivalence principle at the turn of the century formed a foundation for general relativity.

The best test so far of the weak equivalence principle has been a series of experiments carried out at the

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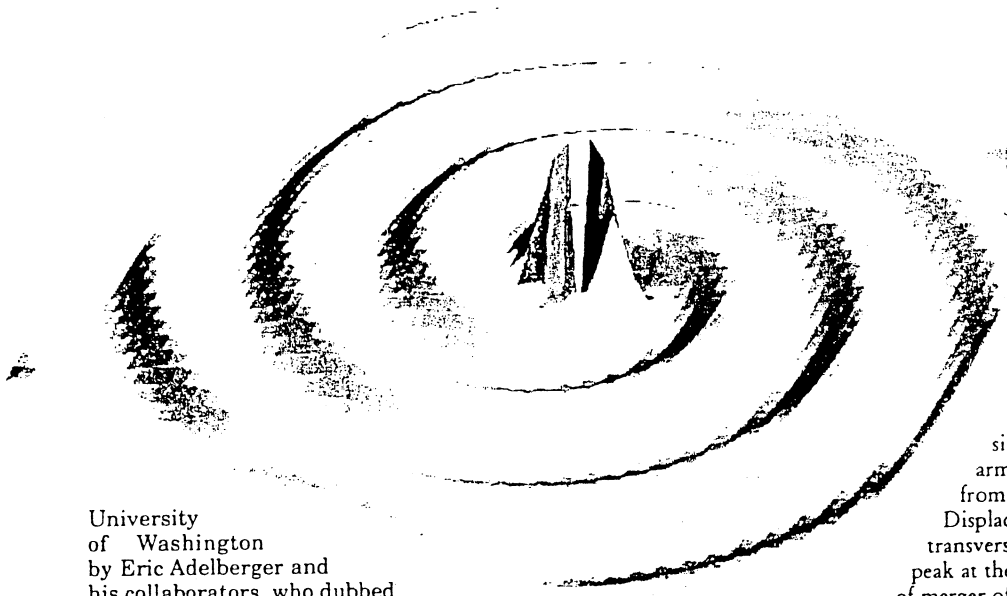


FIGURE 1. GRAVITATIONAL WAVES expected from an inspiraling binary system of neutron stars or black holes. Height above the plane represents the amplitude of one polarization mode of waves at a fixed moment of time. The amplitude decreases with distance, both because of the usual $1/R$ fall-off and because waves measured farther from the source were emitted earlier in its evolution, when the emission was weaker. The double-armed spiral pattern reflects waves from a rotating quadrupole source. Displacements induced in a detector are transverse to the radial direction. The peak at the center indicates the beginning of merger of the two objects, where the post-Newtonian approximation that was used to generate this plot breaks down and numerical solutions of Einstein's equations must be used. (Image courtesy of Laser Interferometer Gravitational-Wave Observatory.)

University of Washington by Eric Adelberger and his collaborators, who dubbed their endeavors "Eöt-Wash." They use a sophisticated torsion balance to compare the accelerations of various pairs of materials toward Earth, the Sun, and the Galaxy.[4] Another strong bound comes from lunar laser ranging (LURE), which checks the equality of acceleration of Earth and the Moon toward the Sun. Figure 2 summarizes key results. (See the article by Kenneth Nordtvedt, PHYSICS TODAY, May 1996, page 26.)

The best tests of local Lorentz invariance consist of "clock anisotropy" experiments. Latter-day versions of the classic 1887 experiments of Albert Michelson and Edward Morley, they involve looking for variations in the rates of clocks as their orientation changes with respect to Earth's 350 km/s velocity relative to the cosmic microwave background radiation. The frame of that background would be a preferred rest frame for physics if local Lorentz invariance were violated. In the Michelson–Morley experiments, the "clocks" being compared were those defined by light propagation along the two perpendicular arms of their interferometer. The modern versions of the experiments, which use laser-cooled trapped-atom techniques to compare the transition rates of atoms as a function of their orientation, have placed exquisite bounds—as tight as parts in 10^{26}—on anomalies. (For further discussion, see the article by Mark P. Haugan and Clifford M. Will, "Modern Tests of Special Relativity," PHYSICS TODAY, May 1987, page 69.)

Local position invariance requires, among other things, that the internal binding energies of all atoms be independent of location in space and time, when measured against some standard atom. If that requirement is fulfilled, an intercomparison of the rates of two kinds of clocks should be independent of time and of the local gravitational potential, and the measured frequency shift between two identical clocks at different locations should be directly related to the difference in gravitational potential between the locations. The best clock anisotropy test to date has been the redshift experiment done in 1976 by Robert Vessot and Martine Levine of the Harvard Center for Astrophysics, in which they compared a hydrogen maser clock on a Scout rocket with another hydrogen maser clock on the ground.

Metric gravity and the post-Newtonian limit

In metric theories of gravity, the slow-motion, weak-field limit that incorporates the first corrections beyond Newtonian theory is called the post-Newtonian limit. Within this limit, it turns out that for a broad class of metric theories, only the numerical values of a certain set of coefficients in the spacetime metric vary from theory to theory. This framework, called the parametrized post-Newtonian (PPN) formalism, dates back to Arthur S. Eddington's 1922 textbook on general relativity; between 1968 and 1972, it was extended by Kenneth Nordtvedt Jr of Montana State University and the author.[2] PPN formalism is a convenient tool for classifying alternative metric theories of gravity, for interpreting the results of experiments, and for suggesting new tests of metric gravity.

PPN formalism has ten parameters. For this discussion, the most important are γ, which is related to the amount of spatial curvature generated by mass; β, which is related to the degree of nonlinearity in the gravitational field; and the four parameters ξ, α_1, α_2, and α_3, which determine whether gravity itself violates a form of local position invariance or local Lorentz invariance. The combination $(1 + \gamma)/2$ governs both the deflection of light and a retardation in the propagation of light near a massive body (a retardation known as the Shapiro time delay, named for Irwin I. Shapiro of Harvard University). The "1/2" part of the coefficient corresponds to the so-called Newtonian deflection, which was derived two centuries ago by Henry Cavendish and later by Johann von Soldner. (It can also be derived by using the principle of equivalence.) The "$\gamma/2$" part comes directly from the warping of space near the massive body. The combination $(2 + 2\gamma - \beta)/3$ modulates the advance of the perihelion of planets such as Mercury. The combination $4\beta - \gamma - 3 - 10\xi/3 - \alpha_1 - 2\alpha_2/3$ determines whether there is a violation of the weak equivalence principle for self-gravitating bodies such as Earth and the Moon—a phenomenon called the Nordtvedt effect. In general relativity, $\gamma - 1$, $\beta - 1$, and the remaining PPN parameters all vanish, as does the Nordtvedt effect.

Three decades of experiments, including the standard light-deflection and perihelion-shift tests; Lunar laser

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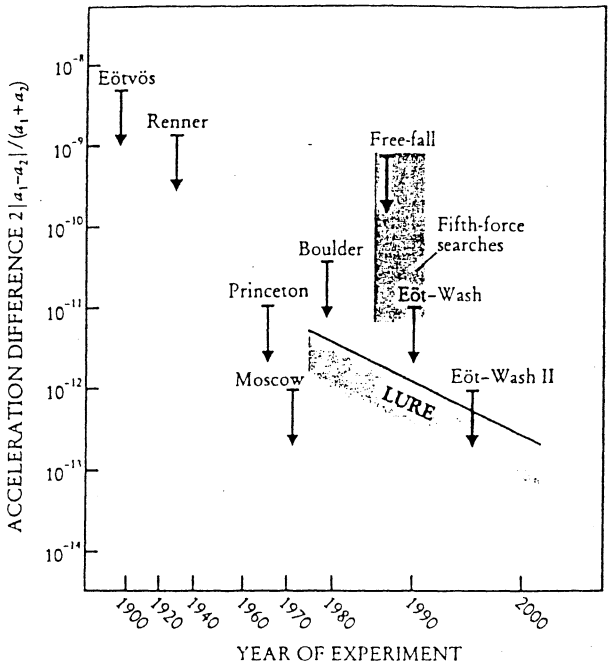


FIGURE 2. EÖTVÖS EXPERIMENTS. Selected tests of the weak equivalence principle are represented here by the bounds they set on the fractional difference in acceleration of different materials or bodies. The original purpose of the "free-fall" and Eöt-Wash experiments, as well as that of numerous others between 1986 and 1990, was to search for a fifth force. The diagonal line with shading shows current and potential bounds on the weak equivalence principle for Earth and the Moon from lunar laser ranging (LURE).

ranging, planetary, and satellite tracking tests of the Shapiro time delay; and geophysical and astronomical observations, have placed bounds on the PPN parameters that are consistent with general relativity. The table on this page summarizes the results. To illustrate the dramatic progress of experimental gravity since the dawn of Einstein's theory, figure 3 shows a chronology of results for $(1+\gamma)/2$. These results range from the 1919 solar eclipse measurements of Eddington and his colleagues to modern-day measurements that use very-long-baseline radio interferometry (VLBI) and orbiting astrometric satellites such as Hipparcos to tests of the Shapiro time delay.

The binary pulsar

The binary pulsar PSR 1913+16, discovered by Russell Hulse and Joseph Taylor in 1974, provided important new tests of general relativity, especially for gravitational radiation and strong-field gravity. By precisely timing the pulsar clock, astrophysicists were able to measure the important orbital parameters of the system with extraordinary precision. Those parameters included the ones normally associated with a nonrelativistic Keplerian two-body orbit, such as the eccentricity e and the orbital period P_b, as well as relativistic parameters, such as the rate of advance of the periastron (the binary system analog of the perihelion), the combined effects of time-dilation and gravitational redshift on the observed rate of the pulsar, and the rate of decrease of the orbital period. The rate-of-decrease effect is a result of gravitational radiation damping; measuring it requires making a small correction for the effect of the galaxy's rotation on the distance to the pulsar (other possible sources of orbital damping, such as tidal friction, have been shown to be negligible).

If we assume that general relativity is provisionally correct and make the reasonable assumption that both objects are neutron stars, then all three relativistic effects depend on the eccentricity and orbital period (which are measured directly) and on the two stellar masses (which are not), and on nothing else. By combining the observations with the predictions of general relativity, we obtain *simultaneously* a measurement of the two masses and a test of general relativity, because the system is overdetermined. The masses turn out to be 1.4411 and 1.3873 solar masses for the pulsar and its companion, respectively, with an uncertainty of less than 0.05%. The predicted decrease of the orbital period owing to gravitational radiation damping agrees with the observed decrease to better than 0.3 %. The discovery of the binary pulsar garnered Hulse and Taylor the 1993 Nobel Prize in Physics.[5] Other binary pulsars, such as B1534+12, B2127+11C, and B1855+09, are also yielding interesting relativistic tests.[6]

Binary pulsar measurements also test the strong-field aspects of general relativity, because the neutron stars that make up the systems have very strong internal gravity, which contributes as much as several tenths of the mass-energy of each body at rest (compared to the orbital energy, which is only 10^{-6} of the system's mass-energy). In alternative theories, such as scalar–tensor gravity, the internal self-gravity effects can lead to qualitatively new phenomena, such as the emission of dipole gravitational radiation, whose damping effect on the orbit can be significantly different from that of the usual quadrupole radiation of general relativity. No such effects induced by internal energy occur in general relativity.

The return of scalar–tensor gravity

Among the alternative metric theories of gravity,

Current limits on the parameters of post-Newtonian gravity

Parameter	Upper limit on its absolute value	Observable effect	How tested
$\gamma-1$	3×10^{-4}	Light deflection	Very-long-baseline radio interferometry (VLBI)
	2×10^{-3}	Shapiro time delay	Mars radar ranging
$\beta-1$	3×10^{-3}	Perihelion shift of Mercury	Planetary radar ranging
ξ	10^{-3}	Anisotropy in gravity induced by distant matter	Gravimeter bounds on anomalies in Earth tides
α_1	4×10^{-4}	Anisotropy in gravity due to motion through universe	Lunar laser ranging
α_2	4×10^{-7}	Precession of spin of body moving through universe	Solar spin alignment in relation to ecliptic plane
α_3	2×10^{-20}	"Self" acceleration of spinning body moving through universe	No anomalies in pulsar $\dot{P}$ statistics
η	10^{-3}	Violation of equivalence principle for massive bodies (Nordtvedt effect)	Lunar laser ranging

In terms of the six parametrized post-Newtonian parameters discussed in the text, $\eta=4\beta-\gamma-3-10\xi/3-\alpha_1-2\alpha_2/3$
All parameters listed vanish identically according to general relativity.

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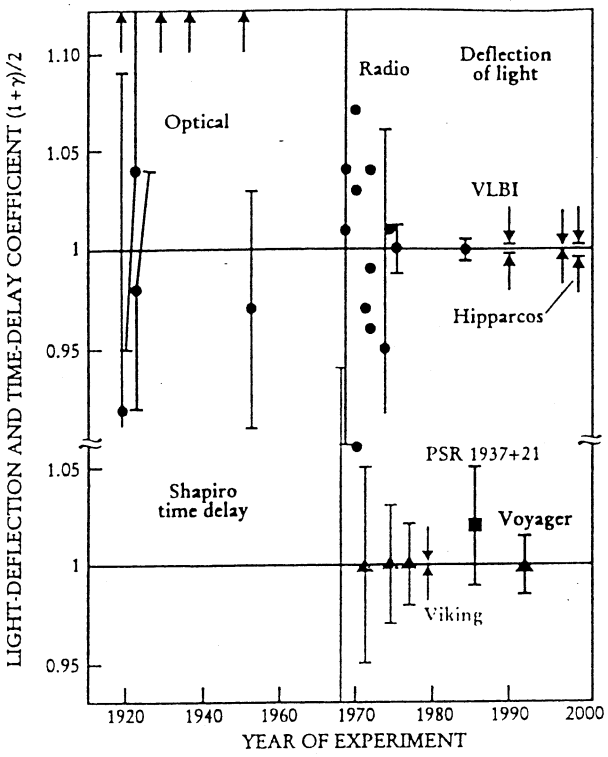


FIGURE 3. DEFLECTION AND DELAY OF LIGHT passing near the Sun. Plotted are values of the coefficient $(1+\gamma)/2$ based on observations of the deflection of light and of the Shapiro delay in the propagation of radio signals near the Sun (γ is a measure of the amount of spatial curvature generated by mass). General relativity predicts a value of unity for the coefficient. "Optical" denotes measurements of stellar deflection made during solar eclipses. "Radio" denotes interferometric measurements of radio-wave deflection. "VLBI" denotes very-long-baseline radio interferometry. "Hipparcos" denotes the optical astrometry satellite. Arrows indicate the anomalously large values from one of the 1919 eclipse expeditions and from other eclipse expeditions through 1947. Shapiro time-delay measurements with the Viking spacecraft on Mars yielded tests at the 0.1% level, and light-deflection measurements using VLBI have reached 0.03%.

scalar–tensor theories have played a special role. The most famous of the theories was the one developed and promoted in the 1960s by Brans and Dicke. In addition to the spacetime geometry described by a metric, $g_{\mu\nu}$, scalar–tensor theories postulate a scalar field Φ, that, in a standard representation, couples only to gravity itself, not to matter, thereby satisfying the requirements of metric gravity automatically. The "strength" of the scalar field is determined by a coupling constant ω such that the larger the value of ω, the weaker the scalar field. In the large ω limit, Brans–Dicke theory merges smoothly with general relativity, in that the differences between the two theories in all predictions vanish roughly as $1/\omega$. But because measurements of the deflection of light described above place the lower bound on ω at greater than 3000, Brans–Dicke theory has generally been regarded as all but dead.

During the past decade, however, new mutant strains of scalar–tensor gravity have emerged, their formulation motivated by string theory and by some models of inflationary cosmology, although they were studied in other contexts as early as 1968. In the new theories, the coupling ω is not a fixed constant but is a function of the scalar field Φ. So the theories can agree with experiment in the present Solar System—when Φ has values such that $\omega(\Phi) > 3000$—but may be very different from general relativity in the early universe, or in strong-field regimes such as neutron star interiors. In typical cosmological models, the scalar field evolves in such a way that $\omega(\Phi)$ is driven naturally to large (though finite) values in the present epoch, independently of its value in the early universe. In a sense, general relativity is a cosmological "attractor" for such theories. The fact that the present value of ω in some models could be as small as 10^4, suggests interesting and reachable goals for future experiments. Not only that, but as noted earlier, some string-inspired theories introduce direct weak couplings between matter and the scalar field—and by doing that, can violate the Einstein equivalence principle.[3]

Future experimental tests

Much of the discussion about future gravitational experiments focuses on ways to test these new versions of scalar–tensor gravity, in the hope of limiting or discovering new physics that might arise from strings or other models of unification. The following are four promising avenues of experimental work.

▷ In addition to improved ground-based Eötvös-type experiments, which could test the weak equivalence principle to the level of 10^{-14}, a proposed satellite test could reach the level of 10^{-18}.

▷ The Stanford–Lockheed–NASA Gyroscope Experiment, called Gravity Probe B, will measure the precession of an array of gyroscopes in Earth orbit. Although its primary science goal is a 1% measurement of the dragging of inertial frames that is caused by Earth's rotation (also called the Lense–Thirring effect), Gravity Probe B will also measure the precession caused by ordinary space curvature around the planet. Measurement of this effect could bound the coupling ω to 10^4 or higher. Launch of the mission is scheduled for late 2000.[7]

▷ Binary pulsars could yield bounds on scalar–tensor gravity, because that theory predicts dipole gravitational radiation. Unfortunately, the bound from the Hulse–Taylor system is only $\omega > 100$, because the near identity of the two neutron stars suppresses dipole radiation by symmetry. A suitable asymmetric system containing a black hole or a white dwarf as the pulsar's companion could yield bounds on ω as high as 10^4.

▷ Tests of the force of gravity at submillimeter ranges are being designed that could detect or bound new gravitation-like nonmetric couplings.

Gravitational-wave tests of gravitation theory

What could the direct observation of gravitational waves add to the list of tests and bounds? First, detection of the waves would in and of itself be a striking confirmation of general relativity, despite the fact that their existence is strongly supported by the binary pulsar. Here the situation is reminiscent of the case of neutrinos: the direct detection of neutrinos by Frederick Reines and Clyde Cowan in 1956 was an impressive discovery (worthy of the 1995 Nobel Prize in Physics) despite the preexisting confidence in their reality that beta decay engendered. Second, direct study of gravitational waves will check their properties as predicted by general relativity—properties that are only indirectly reflected in the damping of binary pulsar orbits. Third, gravitational waves are likely to carry the imprints of strong-gravity phenomena at the sources—

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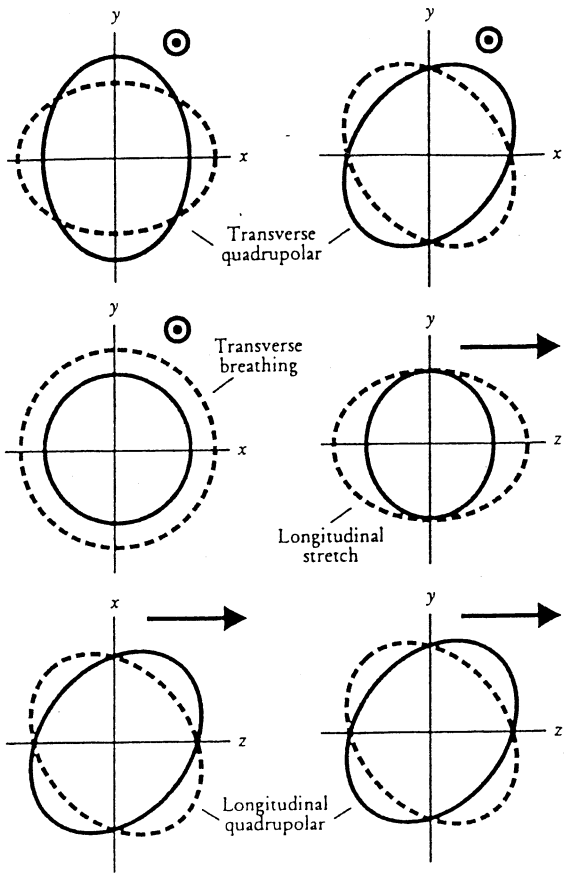


FIGURE 4. SIX POLARIZATION MODES for gravitational waves permitted in any metric theory of gravity. Shown is the displacement that each mode induces on a ring of test particles at 0° and 180° phase. The wave propagates in the +z direction. In the three transverse modes, the wave propagates out of the plane; in the three longitudinal modes, the wave propagates in the plane. There is no displacement out of the plane of the picture. In general relativity, only the two transverse quadrupolar modes are present; in scalar–tensor gravity, the transverse breathing mode may also be present.

and study of those imprints could lead to tests of general relativity in the strong-field regime.

Polarization of gravitational waves. A laser-interferometric or resonant-bar gravitational-wave detector measures local relative displacements of mirrors or mechanical elements, which can be related to a symmetric 3×3 strain tensor. The tensor, in turn, can be related directly to components of the Riemann curvature tensor of spacetime generated by the wave. The six independent components of the strain tensor can be expressed in terms of polarizations, which are modes of motion with specific transformation properties under rotations and boosts. Three are transverse to the direction of propagation, with two representing quadrupolar deformations and one representing a monopole "breathing" deformation. The other three are longitudinal, with one being an axially symmetric stretching mode in the propagation direction and the remaining two being quadrupolar (see figure 4).

General relativity predicts only the first two transverse quadrupolar modes, independently of the source; this behavior goes hand in hand with the notion that, at a quantum level, gravitational waves are associated with a spin-2 particle, the graviton. Scalar–tensor theories also predict the transverse breathing mode, a spin-0 mode. More general metric theories predict up to the full complement of six modes. A suitable array of gravitational antennas could delineate or limit the number of modes present in a given wave. If evidence were found of any mode other than the two transverse quadrupolar modes of general relativity, the result would be disastrous for the theory. On the other hand, the absence of a breathing mode would not necessarily rule out scalar–tensor gravity, because the strength of that mode relative to the quadrupolar modes will depend on the nature of the source.

Speed of gravitational waves. According to general relativity (and scalar–tensor gravity, as it happens), in the limit wherein the wavelength of gravitational waves is small in comparison to the radius of curvature of the background spacetime, the waves propagate along null geodesics of the background spacetime. In other words, they have precisely the same speed, c, as light propagating through the same region would.

One circumstance in which the speed v_g of gravitational waves could differ from c would be if gravitation were propagated by a massive field (a massive graviton), in which case the value of v_g would depend on the gravitational wavelength λ according to $v_g^2/c^2 = 1 - \lambda^2/\lambda_g^2$, where $\lambda_g = h/m_g c$ is the graviton Compton wavelength.

The most obvious way to check the speed of gravitational waves is to compare the arrival times of a gravitational wave and an electromagnetic wave from a single event, such as a supernova. For a source at a distance of 200 megaparsecs, a bound on the arrival time difference between electromagnetic and gravitational signals of one second would put a bound of 5×10^{-17} on a fractional speed difference. This scenario assumes, of course, that the source emits both gravitational and electromagnetic radiation in detectable amounts and that the relative time of emission can either be established to sufficient accuracy or be shown to be sufficiently small.

There is a situation, however, in which a bound on a hypothetical wavelength-dependent speed could be set by means of gravitational radiation alone. That is the case of an in-spiraling compact binary system containing neutron stars or black holes, a system that would be observed by laser interferometers such as the Laser Interferometer Gravitational-Wave Observatory (LIGO, discussed in the next article, by Barish and Weiss) and the instrument known as VIRGO. In in-spiraling compact binary systems, gravitational-radiation damping drives the binary toward smaller separations and higher orbital frequencies, a process leading eventually to a catastrophic merger. Gravitational waves from the last few minutes of those in-spiraling systems will sweep through the sensitive bandwidth of LIGO/VIRGO detectors (10 to 500 Hz). We'll detect the radiation many years after the system "died." Because the frequency of the gravitational radiation sweeps from low frequency at the first moment of observation to higher frequency at the final moment, the speed of the waves emitted will vary from lower speeds at first to higher speeds (closer to c) at the end. The variation in speed will cause discernible distortion in the observed phasing of the waves. Even better tests of a wavelength-dependent speed could be obtained by observing supermassive in-spiraling double black hole systems (10^4 to 10^7 solar masses) in the centers of active galaxies by means of proposed space-based laser interferometric observatories[8] in the low-frequency band around 10^{-3} Hz.

Gravitational radiation back reaction. Binary orbits inevitably decay, because of the loss of gravitational

S 001343

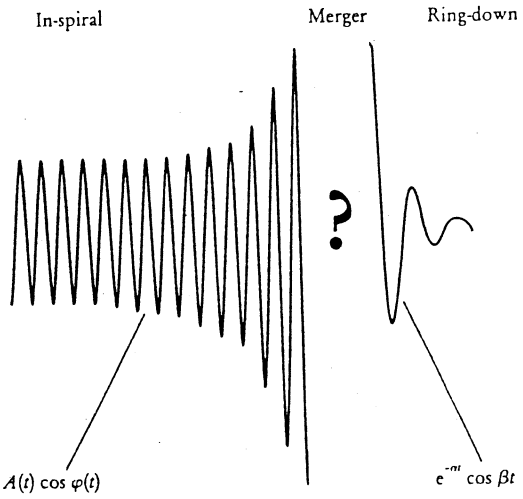


FIGURE 5. GRAVITATIONAL WAVEFORM expected from compact binary in-spiral, merger, and ringdown of a final black hole. During the in-spiral phase, a post-Newtonian approximation carried to high powers of v/c beyond Newtonian order accurately describes the orbit and waveform, with amplitude $A(t)$ and phase $\varphi(t)$ that evolve nonlinearly with time. The merger waveform is unknown at present; to determine it is the primary goal of numerical relativity. The ring-down waveform is a superposition of damped normal modes. For each mode, the damping coefficient α and frequency β have been thoroughly calculated by means of perturbation theory and have been cataloged as functions of the mass and spin of the black hole.

radiation energy. It is predicted that the Hulse–Taylor binary pulsar will reach a final in-spiral and merger in 240 million years. During the in-spiral phase, the motion of two compact bodies (neutron stars or black holes) can be described accurately by equations that treat Newtonian motion as the first approximation and include post-Newtonian corrections in increasing powers of v/c, where v is the orbital speed. The corrections include radiation back reaction. The evolution of the orbit is imprinted on the phasing of the emitted waveform, to which broadband laser interferometers are especially sensitive, because the data can be cross-correlated against theoretical templates derived from general relativity. Indeed, the sensitivity of the interferometers is expected to be so high that the equations of motion describing the orbit must be accurate to order $(v/c)^{11}$ beyond ordinary Newtonian gravity. Several groups are now engaged in the formidable task of deriving equations of motion from general relativity to that high order.[9]

This extraordinary accuracy will provide an opportunity to conduct further tests of general relativity. When spins and tidal effects can be ignored, the motion depends only on the two masses. As in the case of the binary pulsar, measuring the various post-Newtonian correction terms in the signal leads to a highly overdetermined situation, in which we can measure the two masses accurately, and simultaneously test general relativity. One additional test, for example, arises from a contribution—to the gravitational-wave signal and to the back reaction—known as the tail. The tail is a fundamentally nonlinear gravitational effect caused by backscattering of the outgoing gravitational waves off the local spacetime curvature generated by the binary system itself. The action of the tail results in a unique and expected contribution to the phasing of the waves, one that can be tested.

Scalar–tensor gravity can also be tested by means of such observations. The generation of dipole gravitational radiation by an asymmetric binary (for technical reasons, a binary consisting of a neutron star and a black hole is best) modifies the gravitational-radiation back reaction and the observed phasing of the waves. The fortuitous discovery of such a system could lead to a bound on the scalar–tensor coupling constant ω that exceeds current Solar System bounds.

Testing general relativity at strong fields

Finally, the in-spiraling and merger of two compact objects, or the core collapse in a supernova, involve the physics of spacetime curvature in the limit of strong, highly dynamical fields, as well as the formation and evolution of black hole event horizons. Although this physics is so complex that quantitatively precise tests of general relativity are not likely to be realized, making qualitatively striking tests may nevertheless be possible. For example, the gravitational-wave signal generated by the in-spiraling and merger of two compact objects to form a black hole, and the waves emitted during the ring-down of the final black hole in its discrete set of normal modes, will be imprinted with the masses and spins of the in-spiraling objects and the mass and angular momentum of the final black hole. The signal will reflect dynamical, strong-field general relativity in its full glory (see figure 5). Finding firm predictions for the waves to compare the observations against requires solving Einstein's equations in a regime in which post-Newtonian methods fail. Only large-scale numerical computation has a hope of yielding reliable results. This challenging task has been taken up by many "numerical relativity" groups around the world.[10] The discovery and study of the formation of a black hole by means of gravitational waves would provide a stunning test of relativistic gravity.

I have adapted this article from a talk I gave at the April 1998 meeting of the American Physical Society. My work is supported in part by the National Science Foundation.

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10. See the following articles in Marck and Lasota: E. Müller, p. 273; K. Oohara, T. Nakamura, p. 309; E. Seidel, W.-M. Suen, p. 335; S. Bonazzola, E. Gourgoulhon, J.-A. Marck, p. 257. ■

S 001344

From: Stephen Benka
To: Jeff Schmidt
Date: 8/19/99 7:09pm
Subject: First thoughts on your response to the review

Jeff,

Because you didn't have time to discuss your response to your review when you gave it to me, here are my initial thoughts on the inaccuracies that you perceive. Let's discuss this further as soon as possible.

Your example #1: You neglected to mention that, initially, you had wanted to count Goldstein as one long article, not two. However, because you had completed Goldstein within the previous review cycle, and because you were two full articles short of your already reduced (because of your cancelled paternity leave) production goal for last year, we counted them as two and included them in that cycle. This ensured that you would receive an "acceptable" rating, which was clearly in your best interest.

Each editor who worked on decadal excerpts for the anniversary issue did the equivalent of one full article's work in his or her decade. There would be no reason to count yours otherwise, except that your work on your decade had to be largely redone by someone else.

As of today, to my knowledge, the Will article is not yet completed. If it were, I would count it as an article completed within this review period.

Your example #2: You are right that I should have discussed the change of weights with you. I apologize for not having done so. Let's discuss and agree on your job description as soon as possible.

Your example #3: My description is accurate.

Your example #4: Your appeal to Charles Harris, Theresa Braun, and James Stith was the proper procedure to follow. However, as we discussed earlier today (and at other times), your surreptitious circulation of your response to the staff was entirely inappropriate.

I still would like you to tell me which member or members of the staff you have discussed this year's review with.

--Steve

Notes: #of pages[editor's initials, day closed ("minus" is good)]article author

1997

January	7½[JS-2]Collins, 6½[JS-6]Weart
February	7[JS-1]Wheelon
----------REVIEW PERIOD ----------	
March	6[JS-7]Sales
April	7[JS-1]Ferguson, 7½[JS-1]Crabtree
May	
June	7½[JS-4]Crowley, 6½[JS-2]North
July	5[JS-2]Parsegian, 7[JS-5]Harris
August	6½[JS-4]Soulen
September	6[JS-9]Libicki
October	7[JS-5]Perl
November	
December	6[JS-7]Ross, 6[JS-7]Riordan

1998

January	7[JS-0]Mourou
February	
----------REVIEW PERIOD -----(18 articles required)----------	
March	6[JS-0]Sullivan, 6[JS-0]Barth, {5[JS-8]GoldsteinI, counted in previous review period}
April	6[JS-0]Ramaty, {5[JS-8]GoldsteinII, counted in previous review period}
May	8x5decades=40[all+3] Jeff gets 1/2 credit for one decade
June	6[JS-2]Dekee
July	6½[JS-2]Busch-Vishniac
August	6½[JS-7]Segev, 7[JS-1]Hemley
September	---
October	6½[JS-8]Bering, 6½[JS-1]Canfield
November	5.5[JS-3]Vogel
December	---

1999

January	6.5[JS-1]Redish, 6.5[JS-8]Ertl
February	
September	6[JS-7]Bernholc
----------REVIEW PERIOD ----------	
October	Will

PHYSICS TODAY August 13, 1999
PERFORMANCE REVIEW 1999

Employee Name: Jeff Schmidt Job Title: Senior Associate Editor
Division: Physics Today Reports to: Editor
PERIOD: Feb 1998-Aug 1999 (PT issues March '98-Sep '99) - incl. 6-mo. sabbatical

OK? or not? Explain

Major Responsibility 1: Edit articles
Weight:80% Rating: 2.0 Score: 160

Comments: For this review period, Jeff was asked to produce 18 high-quality articles, and he actually produced 13.5, which is unacceptable. This counts his partial contribution to the May '98 50th anniversary issue as 1/2-article rather than 1, because he had to be removed from the project. Another editor stepped up and completed Jeff's job. Aside from that event, his editing was satisfactory. The reviewer recognizes that one of Jeff's articles (Segev, 8/98) was extremely difficult, and just making it publishable was a good accomplishment. Two other articles were assigned to Jeff on relatively short notice, and he completed them in time for publication.

Jeff now handles his own correspondence and keyboarding, as do the other articles editors. He needs to find ways of raising the level of the more unimaginative authors, through creative rewriting as well as editing.

Major Responsibility 2: Take responsibility for assigned articles
Weight: 15% Rating: 3.5 Score: 52.5

Comments: Jeff still does well in this area of his job.

Major Responsibility 3: Support the editorial effort of PT
Weight: 5% Rating: 1.5 Score: 7.5

Comments: During this review period, Jeff repeatedly engaged in disruptive behavior, damaging a collegial office climate and thereby undermining the editorial effort of Physics Today. Such behavior is unacceptable. Two examples will suffice.

(1) As noted above, Jeff was removed from working on the PT Anniversary issue. That was for two reasons: He produced a very unbalanced set of decadal excerpts, strongly centered on political issues, whereas he had been directed to focus on physics excerpts while his non-physicist partner focused on other excerpts. All five decades paired a physicist with a nonphysicist in that manner. When his partner pointed out the imbalance and made suggestions to fix it, Jeff rebuffed him, provoking his partner to quit. For his failure to produce excerpts consistent with the stated goal, and for his failure to work respectfully and collegially with a fellow editor, he was removed from the job, which was completed by his partner and another physicist on the staff who had already completed his decadal excerpts.

out of context

(2) Jeff wrote a response to his last performance review, as he is entitled to do. The response was ?? pages long and highly inflammatory in nature. Jeff made no attempt to discuss his response with his manager, but instead surreptitiously circulated it to PT staff members, whether they wanted to see it or not. Such an action seems to actively, perhaps even maliciously, undermine the cohesiveness and morale of the staff, as well as respect for management. Such an action in no way constructively supports the editorial efforts of PT; rather, it destructively undermines such efforts.

Appraiser's comments and Performance Plan: Jeff took a six-month sabbatical during this review period, from mid-December to mid-June. In the two months since his return, he has worked quietly at his job, and contributed positively in staff meetings.

effectively

At Jeff's request, his salary will be reduced by 1/3, and his workload will also be reduced by 1/3, to 12 articles per year. As always, the articles must be of high-quality, with Jeff editing and rewriting text as needed, handling his own correspondence and doing all of his own keyboarding. The articles must be consistent with the magazine's standards of accuracy, readability, brevity, and visual appeal.

In addition, he is expected to provide helpful support to the overall editorial effort of the magazine.

OVERALL RATING: 2.2 **OVERALL SCORE: 220.0**

Employee's Comments:

SIGNATURES:

Employee:.....Date:.....

Appraiser:.....Date:.....

Both the appraiser and the employee must sign and date the form. The employee's signature does not necessarily represent agreement with the review but that he/she has seen the form and participated in the performance appraisal.

H.R. Review:.....Date:.....

AMERICAN INSTITUTE OF PHYSICS

AMERICAN INSTITUTE OF PHYSICS
PAYROLL AUTHORIZATION FORM B

Name: Schmidt, Jeffrey Business Unit: Physics Today
Social Security Number: [redacted]

REMARKS: ANNUAL

SALARY CHANGE INFORMATION:

Position Title	Grade	Range	Effective Date	Next Rev. Date
Sr Associate Editor	50000 66412.5 82825 E08-99		9/1/99	9/1/2000

Previous Salary	Amount of Increase	New Salary	Percent of Increase	Rating
66499.94	1350.00	67,850.00	2%	3.0

Quartile	Amount of Previous Increase	Previous % Increase	Last years Rating
3	0	0	3 rating

TITLE CHANGE INFORMATION:

FROM
POSITION TITLE: Sr Associate Editor

Current Grade: E08-99

Effective date of change: _____

TO:
POSITION TITLE; _____

New Grade: _____

New Grade Range: _____

TRANSFER OF BUSINESS UNIT:

Business Unit: Physics Today New Business Unit: _____

Effective date of change: _____

SIGNATURES:

Recommending Party	Authorization	Human Resource
Steve Benka		
Date: 8/19/99	Date: _____	Date: _____

PAF CREATED BY:

jpw

D00500

19 August 1999

To: Stephen Benka, Editor, Physics Today, American Institute of Physics

From: Jeff Schmidt, Senior Associate Editor, Physics Today

Subject: My 1999 performance review (dated 13 August 1999 and signed by you on 17 August 1999)

I was disappointed to find that you wrote my 1999 performance review in the same punitive spirit as my 1998 review. Like my 1998 review, the present review understates or completely leaves out my accomplishments and does not mention the praise that I have received for my work. At the same time, it contrives deficiencies and plays them up. I had thought you had gotten beyond that.

I was also surprised to see that you used an unchanged version of my 1998 review as a starting point for the 1999 review, thereby compounding many serious errors. As you know, in my memo of 27 April 1998 I brought to AIP's attention a number of serious errors in my 1998 performance review — places where statements in the review conflict with the (still existing) written record. AIP did not find fault with any of my corrections, yet you have proceeded as if they had never been brought to AIP's attention.

Hence, not perceiving a genuine interest in accuracy in these matters, let alone fairness, I will not detail here the many serious errors of fact in the 1999 review and the obvious reasons for those errors. I will just make the general statement (and give a few examples) that the 1999 review stands in conflict with the written record as much as the 1998 review did — and for the same reasons, which are detailed in my memo of 27 April 1998. The 1999 review appears to be an extension of the 1998 review: It continues the step-by-step lowering of my appraisal from above average to average to below average, even though the quality and quantity of my work remains as high as ever. Here are the examples:

1. The 1999 review states that I edited 13.5 articles for the Physics Today issues of March 1998 – September 1999. In fact I edited the equivalent of at least 17 articles for those issues: Goldstein, Sullivan, Barth, another article by Goldstein, Ramaty, De Kee, Busch-Vishniac, Hemley, Segev, Bering, Canfield, Vogel, Ertl, Redish, Bernholc and work for the May 1998 special issue amounting to the equivalent of at least two articles. The huge amount of extra work that I did for that special issue was clear to you and to everyone else at the time. I worked day and night to meet the deadline, and you even gave me the AIP "Pat on the Back" award for my "extra effort" and "outstanding performance." (See the attached pages for a copy of the award.) But my 1999 performance review rewrites history to re-estimate the amount of work that I did as the equivalent of editing one-half of an article.

I always work ahead, of course, as magazine work requires, and so I have edited an 18th article (by Clifford Will) during the stated review period (February 1998 – August 1999). However, this article will not be published in the issues counted for my 1999 review (March 1998 – September 1999), and so should not be counted for that review, even though I did the work during that period. Except for my 1998 review, that is how the accounting has been done

on my performance reviews for 17 years, and that is how it should continue to be done unless it is changed by mutual agreement, before the work is done. It is unfair for you to change the accounting method at the end of the review period while you are writing the review, as you did in my 1998 review (see page 4 of my memo of 27 April 1998) and as you did again in my 1999 review, when you reverted back to the long-standing method. Each of these self-serving changes reduced the number of articles credited to me on my 1999 review. The consistent and fair bottom line for my 1999 review is 17 articles, not 18 — and certainly not "13.5."

2. Similarly, it is unfair for you to change my job description after I have done the work. Since 25 August 1997 my three areas of work have been weighted at 70%, 25% and 5% (see your written statement of 25 August 1997, a copy of which is in the addenda of my memo of 27 April 1998.) You altered those percentages while you were writing my 1999 review to 80%, 15% and 5%, lowering my rating. I am particularly surprised that you did that, because I thought you had promised a more above-board management style after I objected to an earlier (19 August 1997), similar action on your part. (For a description of that action, see page 3 of my memo of 2 September 1997, a copy of which is in the addenda of my memo of 27 April 1998.)

3. Your description of the way the work on the May 1998 special issue was organized is incorrect. The editors were told to excerpt "the best of Physics Today" for that issue, and in the decade assigned to me and my partner, that material happened to center on political issues. The staff was not, in fact, required to divide the work along "physics" and "political" lines as you suggest. One pair of staff members, for example, simply divided their decade in half, with each person excerpting the best material from a five-year period. Contrary to what the review says, I did not rebuff or work less than respectfully and collegially with other staff members. In fact, I implemented my partner's suggestions, making major changes in the 8-page section to do so. My partner did not quit as you claim. Your characterization of my work with my partner is an incorrect speculation, a self-serving assumption about what might have happened. If you doubt the accuracy of anything that I have said in this paragraph, you need only ask the staff members to whom I have referred.

4. Contrary to your assertion, I did give you my response to my 1998 performance review. I did so verbally and we discussed it at length. You then consulted with Charles Harris about my request to correct errors in the review, and you refused to do so. I then appealed to Theresa Braun, AIP Director of Human Resources, and James Stith, AIP Director of Physics Programs. Contrary to your claim, there was nothing surreptitious about my not directing that appeal to you or about the fact that others may have seen my appeal. I had already made the appeal to you and had already discussed the issues with you.

These are just a few of the many inaccuracies in my 1999 performance review. They add to the evidently yet-uncorrected inaccuracies in my 1998 review, which should be made to conform to the written record promptly.

Finally, it is discouraging to see that it "seems" to you that I have acted to worsen the staff's morale problems, lower-than-desired respect for management and deficient cohesiveness. This speculation is way off the mark and suggests that you are looking in the wrong place to solve these very serious problems, to the detriment of the staff and the physics community.

8/19/99 3:30pm — Jeff and I discussed his performance review. We changed the "overall rating" to 3.0 and deleted "still" at his request. We agreed that, on page 2, where I wrote "seems to" I had really meant "seems intended to" — but he didn't want me to change it.

He has already discussed his review with another staff member. He'll ask permission to tell me who — if that staff member doesn't give permission, he won't tell me.

He finds the review very negative, not focussing at all on the positive.

I told him that I hope it's the last such review I ever write, that next year's will be much better. I made it very clear that he is capable of contributing constructively and that he needs to do so. ~~Any destructive behavior~~ I wanted last year to be the very end of his destructive behavior.

He said he will write a response.

Jeff told me that "many" of the staff discuss their reviews with each other. He further said that I shouldn't be surprised about it. To him (and others) on the staff, "confidentiality" applies to me but not to them.

He thought the 3.5 for "Taking responsibility for assigned articles" was stingy. It was the same as last year. He said "he did "as well" at this as others on the staff, who got higher scores, and he named Charles Day.

[Roughly a half-hour after I wrote the above notes, Jeff handed me the signed review with a 2-page response and 3 pages of attachments. I showed him the note about prorating his salary increase, and he agreed that it was accurate and thanked me. (I forgot to mention in the above notes that we had agreed that I would include such a note with his review.]

9/30/99

Last Thursday, 8/26/99, Jeff and I talked about his review. He spoke at length about why he wouldn't divulge the identity of ~~Boss~~ who he had discussed his review with. He said "they" didn't want to be involved. Jeff made it clear that he would tell me "in his words, not theirs" about it. He spoke of my "investigation", a "witch hunt", "fear of reprisals", and other things that he has spoken of before. In my view, he was putting his "spin" on events, and was to be taken with great skepticism. I let him talk, then turned the subject to his review.

I brought up a topic we'd discussed, but that wasn't in his 2-page response: his claim that he "takes responsibility for articles" as ~~good~~ well as anyone else on the staff. I pointed that I received 2 complaints from authors (Dekee and Hemley) that they hadn't received guidance for their revisions in this period— and they were both his authors. I had forwarded the gist of both complaints to Jeff at the time.

I gave him a list of his articles since Jan '97. We agreed that ~~he~~ only "published" articles will count in

D00511

in the next review period.

He said he prefers this method of counting, though "there are problems with both methods." [counting articles worked on, or articles published]. He wants the Will article to go into his next review.

I said I would ask him to look at his job description on Monday (today).

5pm Just now, Jeff came in with notes for me about his colleagues' comments. I had told him last week that would be helpful for me.

He initialed (and I signed) his job description. He thought it was fine.

He gave me an update on Siegel (out of the country until Labor Day; can then complete article in 10 days).

He foresaw no problem completing both Bloomfield & Leibler for November, though neither revision has arrived yet.

He volunteered for the Berg article for January in response to my email request to him, Chas, Bert, &

D00513

30 August 1999

Steve --

Here are the notes that you requested. They outline the responses that I got when I asked colleagues who saw my annual review for permission to fulfill your request that I report their names to you. As you know, I did not want to give you this written report, but you insisted that I do so. I can only hope that you will use it to address staff concerns and not "kill the messenger."

Four themes were apparent in the responses from my coworkers.

1. They consider me to be a supportive and valuable colleague, and they want you to behave in accord with that view. They note that the long-standing staff morale problems did not originate with my review appeal.

2. Their anxiety was exacerbated by the fact that you were not open about your reasons for wanting their names. (Later, when I asked you specifically why you wanted their names, you refused to answer.) Thus the only thing they imagined coming from your investigation was punishment, of me or of them. They think they would be subject to guilt by association, because you have been so harsh with me.

3. They feel that their conversations were private and that to reveal them would be an invasion of their privacy. They made reference to the First Amendment, the spirit of which they evidently carry with them.

4. They agree with you that annual reviews are confidential, but they see that as a restriction on management, not on them. Thus they feel free to discuss their reviews, and many do. They think it would set a bad precedent if any of us were punished for that.

Please let me know if I can be of further assistance.

Jeff

9/3/99 Jonathan Goodwin called from H.R.
1am

Jeff and he discussed putting the Wild article into his file, with various and sundry notes attached. Fine.

Jeff went on to say that I had admitted making a mistake on the weightings for his review, citing my email to him.

Jonathan read the email, concluded (correctly) that I had apologized to Jeff for not discussing the change with him, not for having made the change. Jonathan conveyed that conclusion to Jeff 3 times, but Jeff wouldn't let it go.

Finally, Jonathan told Jeff to approach me about it, or that I would approach him. Jeff then quickly back off, saying in effect that he didn't want me to know of their discussion, or at least that he didn't want to discuss it with me.

I thanked Jonathan, and explained that I thought this was a clear example of Jeff manufacturing

9/3/99
11:40 am

I called Jeff, told him about Jonathan's call. We agreed that, next Wed. when he comes in, we'll discuss it further. At the very least I want his account of his conv. w/ Jonathan.

I said it seemed he still has "issues" and that, despite my invitation to him (in the email) to discuss them w/ me, he prefers to bring those issues up elsewhere.

He said Jonathan had called him about something else entirely, and that this subject came up only in passing. He said that he and I had already discussed "all of that" and that we didn't agree. I replied that we hadn't discussed my email to him, yet he was trying to use that email, with his own "spin", to accuse me of wrongdoing. I did not see that as a productive course of action.

He has no desire to discuss any of this with me.

9/3/99
~2pm

Jonathan called me. Jeff had called him to find out "if it's ok for a manager to change the weightings w/o first discussing it w/ the employee." After checking w/ Terri Braun, he told Jeff that a manager can change the weightings at any time, but should tell the employee when making such a change.

I noted that I had already acknowledged (and apologized) to Jeff for not having done that.

We agreed to change his weightings back to those that ~~pertained~~ were used on his 1998 review, which changes his overall score from a 2.8 to a 2.83.

From: Jonathan Goodwin
To: Benka, Stephen, Stith, Dr. James
Date: Fri, Sep 3, 1999 5:02 PM
Subject: Jeff Schmidt

Hi folks - I have spoken with Jeff again - he got my message relative to the numbers I had come up with earlier and disagreed with the percentages I had used. He also went on to discuss some other points that he had a problem with - to very briefly outline them -

1) He feels the percentages (weights) should be those assigned in Aug 97 ->70,25,5, as opposed to the ones I used, which were from his last review (76, 19, 5). For the record, these older percentages would increase his rating to 2.875.

2) He feels that the review period stretched out over 18 months was an option that misled him. I believe he is realizing that he could have received some increase at the one-year point, not 18 months, and although he admits he had the option, he seems convinced that there is some fault of Steve's that led him to make the wrong decision. Terri points out that for a 6-month review, we would pro-rate the increase anyway.

3) I also sensed that he was hoping that even a slight increase in rating would give him a slightly higher merit increase. I explained that this is a guideline for the manager, not an exact percentage of the merit matrix cell.

I get the feeling he is attempting to have me act as a back door way of changing everything on the review. After speaking with Terri, it seems like one or both of you will need to discuss Jeff's issues with his review further and come to some conclusions, at which point no further changes will be made.

Thanks very much! Please let me know if you need any additional clarification.

Jonathan

CC: Braun, Terri

From: Stephen Benka
To: Dr. James Stith, Jonathan Goodwin
Date: Tue, Sep 7, 1999 9:34 AM
Subject: Re: Jeff Schmidt

Jeff and I are planning to discuss any issues that he still has tomorrow, Wednesday. --Steve

>>> Jonathan Goodwin 09/03 5:02 PM >>>
Hi folks - I have spoken with Jeff again - he got my message relative to the numbers I had come up with earlier and disagreed with the percentages I had used. He also went on to discuss some other points that he had a problem with - to very briefly outline them -

1) He feels the percentages (weights) should be those assigned in Aug 97 ->70,25,5, as opposed to the ones I used, which were from his last review (76, 19, 5). For the record, these older percentages would increase his rating to 2.875.

2) He feels that the review period stretched out over 18 months was an option that misled him. I believe he is realizing that he could have received some increase at the one-year point, not 18 months, and although he admits he had the option, he seems convinced that there is some fault of Steve's that led him to make the wrong decision. Terri points out that for a 6-month review, we would pro-rate the increase anyway.

3) I also sensed that he was hoping that even a slight increase in rating would give him a slightly higher merit increase. I explained that this is a guideline for the manager, not an exact percentage of the merit matrix cell.

I get the feeling he is attempting to have me act as a back door way of changing everything on the review. After speaking with Terri, it seems like one or both of you will need to discuss Jeff's issues with his review further and come to some conclusions, at which point no further changes will be made.

Thanks very much! Please let me know if you need any additional clarification.

Jonathan

CC: Terri Braun

9/8/99 Conv w/ Jeff

2pm

Salary matrix based on 12 months
Doesn't want to "fall behind" the real increase

Take annual inflation rate, cut in half; add to salary

Could be 2½ month payment of Δ Salary (June 15-Aug 3

Take the component of salary increase that's due to inflation, take times 1.5 (for 18 months)

Will accept either way to fix it.

I agreed that he lost $ because of the 6-month delay in his review — the salary would have increased upon his return.

---

a long time ago...
Reimbursement claim — part was denied
The rest has vanished? — Check into it

Ranges in matrix do (not) correspond to ranges in score.
Thinks increase in score (by increased (decreased) weights) should move up his salary increase w/in the range.
In previous years, salary increase was interpolated.
Would see anything else as punitive

Still sees review as "zealously" negative.

We disagree on the accuracy of the review.
Did not get the tiny amount of credit that he really is due, because we gave him the lowest increase possible in the range.

Score is being raised, so should salary.
"Give credit where credit is due, no matter how tiny that credit might be."

* Wants me "to consider" this.

Wants credit for the 2 Goldstein articles.

Can't do it — I told him

"Good will" is a factor in accounting for articles.
I emphasized that good-will is a 2-way street.

3:20 pm conv. w/ Jonathan: ∄ cost-of-living factor in the salary increases. They are merit-based only. He told that to Jeff several times.
Changes to salary ranges change in response to the market, but not increa

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I will interpolate the new score (2.875)

From: Jim Stith
To: Benka, Stephen
Date: Thu, Nov 18, 1999 12:46 PM
Subject: Fwd: Jeff Schmidt's vacation problem

Steve,

Re the note attached below concerning Jeff Schmidt's "vacation problem". Are you aware of any issues along this line that were discussed, taken into account when Jeff made the request for unpaid leave?

I am in Melville but may be reached by e-mail.

Jim

James H. Stith
Director of Physics Programs
American Institute of Physics
College Park, MD 20740
301 209 3126 (W)
301 209 0841 (Fax)

CC: Nanna, Randy

From: Alice Gersh
To: Terri Braun
Date: Tue, Nov 16, 1999 10:54 AM
Subject: Jeff Schmidt's vacation problem

Terri,
I got to thinking about this, and I wondered how Jeff Schmidt could have come to this situation (i.e., having too much vacation time) when he had just been out without pay for 6 months.

So I looked at the recently-approved policy on Leave of Absence Without Pay (HR Policy # 315.07 in the Policies & Procedures Manual)... and it clearly states that "all accrued vacation time must be used before unpaid leave begins."

So he should have done that, and perhaps we can backtrack and give him pay for as much vacation time as he had back at the beginning of his leave. This way he wouldn't lose any time and we wouldn't have to give him special permission to carry over extra days.

Alice

From: Stephen Benka
To: Dr. James Stith, Terri Braun
Date: Thu, Nov 18, 1999 3:38 PM
Subject: Re: Fwd: Jeff Schmidt's vacation problem

Jim, and others,

Jeff's accrued vacation never entered the discussion prior to his taking leave without pay. It hadn't occurred to me and neither Jeff nor anyone else brought it up.

Enforcing AIP's policy seems reasonable to me, but I'm sure you recognize that Jeff probably wouldn't agree. . . .

Related, Paul Elliot just gave a memo, also requesting to carry additional vacation over to next year. It is addressed to Terri "via Steve Benka, Randy Nanna, Jim Stith." I've ok'ed it and put it in Randy's mailbox. It's my hope that the 50% copy editor we are about to hire will absorb enough of Paul's workload that he'll be able to take some time off next year. I'm sure he hopes the same thing.

Now, about my vacation . . . :-)

--Steve

>>> Jim Stith 11/18 12:49 PM >>>
Terri,

I think this is a reasonable solution. I am checking with Steve to see if there were any issues surrounding vacation at the time that Jeff went on leave. I will be in Melville for the next couple of days and out of the office all next week. Will let you know what I find.

Jim

James H. Stith
Director of Physics Programs
American Institute of Physics
College Park, MD 20740
301 209 3126 (W)
301 209 0841 (Fax)

>>> Terri Braun 11/17/99 05:58PM >>>
Jim: What do you think of this suggestion? I will be back on Friday and speak to you then.

Terri

CC: Nanna, Randy

PHYSICS TODAY STAFF (alphabetical) - 11/23/99

NAME: Judy Barker
JOB DUTIES: Assistant Editor – Buyers' Guide, Index, Calendar, writes for We Hear That and Meeting Previews, proofreader.
HISTORY: Began as support staff in 1993 before the move to Maryland. Showed editorial ability and was given opportunity to grow.
SOME PERSONAL CHARACTERISTICS: Solid, dependable, congenial, adaptable, well organized, tackles special projects with minimal supervision. Two thumbs up.

NAME: Steve Benka
JOB DUTIES: Editor-in-Chief, Managing Editor
History: Hired in 1993 as Associate editor, promoted to Editor-in-Chief in Sept 1994. PhD in physics.
SOME PERSONAL CHARACTERISTICS: To be determined.

NAME: Charles Day
JOB DUTIES: Associate Editor – Articles editor; Obituaries editor; Search and Discovery reporter
HISTORY: I hired him in 1997. PhD in physics (astronomy)
SOME PERSONAL CHARACTERISTICS: Energetic, capable, efficient, bright, congenial. Perhaps the most efficient manager of time on the staff; always gets his work done without staying late. Because he is quick, his editing is sometimes superficial or sloppy; yet takes constructive criticism well. Has wide-ranging interests and often pokes around in corners of physics neglected by others on the staff. A free-thinker with a keen sense of humor. Full of ideas, but not locked in to them. Writes excellent copy. Ambitious, and recognizes that his ambitions might not be fulfilled at PT. Two thumbs up.

NAME: Paul Elliot
JOB DUTIES: Chief Copyeditor; Letters dept editor
HISTORY: I hired him in 1995
SOME PERSONAL CHARACTERISTICS: Very intelligent, analytical mind. Competent, effective copyeditor, but could be more efficient (quicker). Produces an excellent Letters dept, but never on time. Generates prose that can be a bit pompous or least "wooden." Revels in the problem-solving process, and is good at it. For example, tends to view each Letter in that light, seeking and finding the best way to get the cooperation we need from each author. This talent of his often brings fresh ideas to PT's procedural discussions. Like many good copyeditors, has obsessive-compulsive tendencies that slow him down (everything is deliberately and carefully considered), but not to the point of paralysis. His slowness is a source of frustration to the staff and to me. In fairness, he has a large workload and needs help with the copyediting. (He claims his workload is excessive, I feel it isn't if he managed his time better.) One thumb up.

NAME: Toni Feder
JOB DUTIES: News reporter, Physics Community dept.
HISTORY: I hired her in 1995. PhD in physics.
SOME PERSONAL CHARACTERISTICS: Highly energetic, very bright, probing, quickly-becoming-world-class journalist. Telecommutes from Durham, NC, where her common-law-type-husband has a position at Duke. Strong ties to Europe and enjoys covering that part of the world. Excellent journalistic, average editorial judgements. Two thumbs up.

NAME: Rich Fitzgerald
JOB DUTIES: Associate Editor -- Articles editor, Search and Discovery reporter, We Hear That reporter
HISTORY: I hired him in 1998. PhD in physics
SOME PERSONAL CHARACTERISTICS: Bright, effective, congenial, capable. You read his recent performance review. Two thumbs up.

NAME: Tonya Gary
JOB DUTIES: Assistant to the Editor (support staff)
HISTORY: I hired her in 1998.
SOME PERSONAL CHARACTERISTICS: Hired to replace the last of a series of support staff "drill sergeants." A positive personality was needed more than the office skills, and Tonya filled the bill. She quickly started affecting the office climate for the good, and has continually grown into and developed her office skills. She tries hard and very often succeeds, pushing her own capabilities to the limit. She is very willing to pitch in as needed. She is a bit negligent of certain tasks, but continually works to improve. Has some [redacted]d.

NAME: Irwin Goodwin
JOB DUTIES: Sr. Editor - Washington Reports editor, political reporter
HISTORY: ~20 years with PT. Previously, journalist with Newsweek (or some similar national weekly).
SOME PERSONAL CHARACTERISTICS: World-class reporter of the scientific/political interface. Very good writer of prose. Unable to meet deadlines. Very high-maintenance for oversight, production, and copyediting staff (Steve, Elliot, and formerly Jean). Difficult personality: often sarcastic, rude, condescending. Nevertheless insightful, can be helpful and cooperative if he chooses to be. Has a profound and adverse effect on staff "outlook," through the tolerance for his tardiness, high-maintenance, and irascibility.

NAME: Warren Kornberg
JOB DUTIES: Books dept editor
HISTORY: Joined PT as a temporary solution when AIP moved to Maryland in 1993. Works 3 days a week. Former editor of *Science News* and of *Mosaic* (magazine of the National Science Foundation).
SOME PERSONAL CHARACTERISTICS: A consummate professional of the "old school," who believes in the total authoritarianism of the Editor, and in never deviating from established workflow processes. Gruff, opinionated, insightful. Excellent editorial judgement and ability. Willing to adapt, but slow to do so. Because of his part-time status and his commitment to "assembly-line" style editing, he uses more of the support staff's time than any three other editors combined, as well as a freelance proofreader. He is thus very "high-maintenance."

NAME: Barbara Levi
JOB DUTIES: Senior Editor – runs the Search and Discovery dept; solicits articles and reviews; oversees Books dept; oversees Meeting Previews; occasionally edits article.
HISTORY: ~30 years with PT, as at least a consulting editor. PhD in physics and still teaches freshman physics when possible (now at Univ of Calif, Santa Barbara). When her husband was diagnosed with Parkinson's disease, they chose to move to Santa Barbara, to best enjoy their remaining time.
SOME PERSONAL CHARACTERISTICS: Competent, efficient, effective, good people skills, all around good guy. Level-headed, fair-minded, and nobody's clone: If you want a second opinion about anyone or anything related to PT, ask Barbara or Elliot. Gloria had been training Barbara to eventually take over as Editor-in-Chief. Barbara has good journalistic insights (what makes a good story) and excellent editorial judgement (what makes good copy). One of our stars, both on staff and in the community. Two thumbs up.

NAME: Gloria Lubkin
JOB DUTIES: Produce Reference Frame column; Solicit articles
HISTORY: 37+ years with PT, 9 years as Editor-in-Chief (~1985-94). Raised the editorial standards of PT. Master's degree in physics.
SOME PERSONAL CHARACTERISTICS: High standards, high personal integrity, good journalistic insights (what makes a good story), below average editorial judgement (what makes good copy). Poor staff relations, excellent community relations. Poor writer, poor editor of copy. Very "high-maintenance"; needs a great amount of help from the staff, both from editors (in producing publishable prose) and from Elliot (in getting that prose into pages), very often at the last possible moment (cannot meet deadlines). Politically savvy in office and community politics. Casts a long, dark shadow over the staff and the staff's "outlook."

NAME: Elliot Plotkin
JOB DUTIES: Art and Production Director – all aspects of art and production
HISTORY: ~25 years with AIP and PT
SOME PERSONAL CHARACTERISTICS: Competent, efficient, effective, good people skills, all around good guy. Level-headed, fair-minded, and nobody's clone: If you want a second opinion about anyone or anything related to PT, ask Elliot or Barbara. Two thumbs up.

NAME: Peter Pulsifer
JOB DUTIES: Part-time Associate editor -- Articles editor
HISTORY: Was a freelancer, hired in 1999 to make up Jeff's other 1/3-time. PhD in physics.
SOME PERSONAL CHARACTERISTICS: New kid on the block. Full of ideas and enthusiasm. Still developing journalistic and editorial judgement. Nice guy.

NAME: Jeff Schmidt
JOB DUTIES: Sr. Associate Editor – Articles editor
HISTORY: 18 years with PT. PhD in physics.
SOME PERSONAL CHARACTERISTICS: Competent articles editor (used to be the best on the staff, in recent years has been mediocre). Often works from home. Has some good ideas, but they are coupled to a strong political agenda: Distrusts all forms of authority, including, of course, AIP and PT management. A committed malcontent. Can be confrontational, always tenacious, never raises his voice. Has extremely strong rhetorical skills and therefore can be very persuasive. Has influence over some staff members and can use that influence to promote discontent when it serves his purpose. Beware particularly of him (i) setting up a fabricated "straw-man" target to then knock down, and (ii) putting words into your mouth to his advantage. Productivity and quality had been allowed to slip; when pressure was applied (by me), he stirred up great trouble. When pressure remained, he went on a 6-month sabbatical, returned at 2/3 the workload for 2/3 the salary. His latest editing effort (Berg article for January 2000) is the best I've seen from him in a long time. I complimented him on it.

NAME: Bert Schwarzschild
JOB DUTIES: Sr. Associate Editor – Search and Discovery reporter, Articles editor
HISTORY: 20+ years with PT. PhD in physics.
SOME PERSONAL CHARACTERISTICS: Had reputation for laziness, but when asked (told) to be more productive, rose to the challenge and is now fully and effectively engaged. Very opinionated (sometimes offensively so) and gregarious, likes to be the center of attention when possible (is an amateur actor in the theater). Good journalistic and editorial judgement, but limited in scope (stays within fields he is "comfortable" with: mainly particle physics and cosmology). Excellent writer.

NAME: Marion Smith
JOB DUTIES: Editorial Assistant -- support staff
HISTORY: Brought in as a long-term temp, we hired her in early 1999.
SOME PERSONAL CHARACTERISTICS: Extremely capable, congenial, willing to help. Everyone she works with is impressed with her. Two thumbs up.

NAME: Rita Wehrenberg
JOB DUTIES: Senior Production Assistant -- produces advertising supplements for PT & TIP, Elliot's understudy.
HISTORY: I hired her in 1995. Began as support staff after long hiatus from workforce (magazine production background). Moved gradually back into production, as staffing allowed.
SOME PERSONAL CHARACTERISTICS: Bright, very capable, dedicated, congenial, perfectionist (somewhat obsessive-compulsive, but in a constructive way). Works very hard to achieve excellent results. Has a tendency to be a "victim," with perhaps low self-esteem. If you need a second opinion on production and workflow-related matters, ask Rita.

PERFORMANCE REVIEW FOR JEFF SCHMIDT BY PAUL BERSCH

Planning: Jeff has improved his ordering of priorities and now reviews letters, articles and other materials submitted for his review in a more timely manner. Although he works best when concentrating on a single article, he is now interspersing preparatory work for other articles into his article-editing schedule. Rating: G-VG

Executing: Jeff is thorough and accurate at performing his assignments. However, Jeff often presents his ideas in ways (tone, nuance, persistence) that may aggravate some of the people. Rating: VG Delayed entry for 2 yrs. 6

Delegating: Where possible, Jeff delegates grudge work and does it in a way that gains the respect and cooperation of the delegatees. Rating: G-VG

Adaptability: If Jeff is asked to do something to which he takes exception, he will usually express his objections and sometimes repeat them. However, having concluded these representations, he does as asked, does it well and does not bear grudges. Rating: VG

Dependability: Jeff is the most dependable staff member with regard to meeting article completion commitment dates. He can also be counted on to carry out in timely fashion and with satisfactory results any preliminary article work (such as getting referees). He is less dependable (although his performance has improved) on his turnaround time reviewing articles. Rating: VG-E

Initiative: Jeff likes doing the work he does, and he takes pride in doing a good job. He has shown initiative by learning to use the communication capabilities of the computer, which has benefited PT. On the other hand, Jeff has been reticent about providing article ideas. Rating: G-VG

Relationships: With the possible exception of one or two staff, Jeff is well liked by and gets along very well with his coworkers and me. He is particularly appreciated by two of the less-experienced staff because he has been extremely cooperative in teaching them the "tricks" of the article-editing trade. Jeff, unfortunately, rubs off some AIP managers because of the way he presents and pursues his ideas. Rating: G

Attendance: Except for vacation, Jeff invariably is in the office. Although he doesn't keep conventional AIP hours, he puts in considerably more time than standards require. Rating: VG-E

Potential: Under suitable conditions, Jeff could be an even more productive staff member. Rating: VG

Comments: Jeff is looked upon as PT's articles editor, since in the past he has been responsible for producing about 35% of the articles that PT publishes. Although no one is indispensible, Jeff is among the less expendable PT staff members. He has a good analytic mind and ways should be found to use his experience and potential to better advantage.

D00107

Grade

Performance review for Jeff Sommers by Paul Gerson

Planning: Jeff has improved his organization of articles, his reviews, letters, articles and other materials submitted for his review in a more timely manner. He always Jeff does a fine job editing articles, in part because he methodically plans the various article-editing phases. Although he works best when concentrating on a single article, he is now interspersing preparatory work for other articles with his article-editing chores. Rating: 4

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Organizing: Jeff is thorough and accurate at performing his assigned duties, but tends to [illegible] rather than wave from [illegible] that may inconvenience some people. Also, Jeff is [illegible] to [illegible] his [illegible] to [illegible] his [illegible] for the minimum time needed, with a diminishing return for his investment of time. Rating: 3+

Delegating: Where possible, Jeff delegates drudge work and does it in a way that usually gains the respect and cooperation of the delegatees. Rating: 5

Adaptability: If Jeff is asked to do something to which he takes exception, he will usually express his objections and sometimes repeat them. However, having concluded these representations, he does as asked and does it without recrimination. Rating: 4

Dependability: Jeff is the most dependable staff member with regard to meeting article completion commitment dates. He can also be counted on to carry out in timely fashion and with satisfactory results any preliminary article work (such as getting referees). He is less dependable (although his performance has improved) on his turnaround time reviewing articles. Rating: 4+

Initiative: Jeff likes doing the work he does, and he takes pride in doing a good job. He has shown initiative by learning to use the communication capabilities of the computer, which has benefited PT. On the other hand, Jeff has been mostly passive in providing article ideas. Rating: 3+

Relationships: Jeff generally is well liked by and gets along very well with most of his coworkers and me. He is particularly appreciated by Matt Siegel and Ellen Feeman because he has been extremely cooperative in teaching them the "tricks" of the articles editing trade. Jeff, unfortunately, ticks off some people by the way he may present and pursue his ideas. Rating: 3

Attendance: Except for vacation time, Jeff invariably is in the office. Although he doesn't keep conventional 9to5 hours, he puts in considerably more time than standards require. Rating: 4+

Potential: Under suitable conditions, Jeff could be an even more productive staff member. Rating: 4

Comments: Jeff is looked upon as PT's articles editor since, for many years, he has been responsible for producing about 75% of the articles that PT publishes. Although no one is indispensible, Jeff

is among the less expendable PI staff members. He has a good analytic mind that should be used to provide greater input into the department's needs (such as providing ideas and criticism of [potential] articles).

OVERALL GRADE A 3+

Talat Rahman
Fellow of the American Physical Society
University Distinguished Professor
Department of Physics
Kansas State University
Manhattan, Kansas 66506
rahman@phys.ksu.edu
785-532-1611

Michael A. Lee
Professor of Physics
Kent State University
Kent, Ohio 44242
mlee1@kent.edu
330-672-2577

George F. Reiter
Professor of Physics
University of Houston
Houston, Texas 77204
greiter@uh.edu
713-743-3527

Denis G. Rancourt
Professor of Physics
University of Ottawa
Ottawa, Ontario
Canada K1N 6N5
dgr@physics.uottawa.ca
613-562-5800 x6774

Fay Dowker
Physics Department
Queen Mary,
University of London
Mile End Road
London E1 4NS, England
f.dowker@qmul.ac.uk
+44-(0)20-7882-5047

Myriam P. Sarachik
President, American Physical Society
Department of Physics, CCNY-CUNY
Convent Avenue and 138th Street
New York, NY 10031

17 March 2003

Dear Myriam Sarachik,

After a long investigation — the most detailed to date by scientists — an IEEE human rights committee has issued a disturbing report on the dismissal of physicist Jeff Schmidt by the American Institute of Physics. As you know, Jeff was fired after 19 years at *Physics Today* magazine, upon publication of his book, *Disciplined Minds*.

The IEEE committee joins a long list of individuals and organizations that have publicly condemned AIP's action as suppression of dissent within the physics community. Among the 800 scientists and other scholars who have gone on record against AIP's repressive behavior are more than 500 physicists, mostly APS members — the largest number of physicists ever to speak out on a freedom-of-expression issue in the United States.

In one of the scores of protest letters, APS member Al McInturff notes that if we fail to take a stand against suppression of dissent, then "by our silence we concur." This is especially true when the repression is carried out in our name, as it was in this case, because the American Physical Society is the leading organization that governs the American Institute of Physics. APS cannot say, "We aren't responsible for AIP's behavior."

The 500 APS members who are objecting to Jeff's firing would, of course, like their Council to be responsive to their concerns. On their behalf, we ask you to raise the issue formally with the APS Council, of which you are a member. Specifically, we request that the Council hold an on-the-record discussion of the issue and take the following action:

1. Call publicly for Jeff's reinstatement.

2. Instruct the APS representatives on the AIP Governing Board to press for Jeff's reinstatement.

To date, there has been no serious investigation of Jeff's case by any APS official, as evidenced by the simple fact that no one from APS has ever contacted Jeff to give him the opportunity to address whatever issues APS deems decisive in the case.

When we looked into Jeff's dismissal ourselves, we concluded that it was a clear case of suppression of dissent — a reprisal for Jeff's critical research and writing about physics education and professional careers, and in particular for his views on workplace practices and working conditions at *Physics Today*. A revealing statement by AIP CEO Marc Brodsky, prompted by protests against Jeff's firing, confirmed for us that we hadn't missed any significant facts when we assessed the matter.

While at *Physics Today*, Jeff consistently completed his work far ahead of deadline, invariably received job performance ratings of "Meets job requirements" or "Exceeds job requirements," and was widely praised for the quality of his work. The evidence indicates that Jeff would still be employed by *Physics Today*, just as he had been for 19 years, if he had not been a workplace activist and if he had written but not published *Disciplined Minds*. As far as we know, no AIP manager has disputed this,

either publicly or privately. Therefore, we conclude that Jeff was fired for expressing critical views within the physics community. Ironically, reviewers have treated his book as a valuable contribution. (See, for example, the review in the APS Forum publication, *Physics and Society*, July 2002, and the author interview in the APS Division of Biological Physics publication, *The Biological Physicist*, October 2001.)

Jeff's treatment like a heretic reflects poorly on our organization and undermines the science community's efforts to be seen by the public as open-minded. We would like to work with you to make sure that the next round of publicity in this case is positive — based on a clear demonstration by APS that physicists will not tolerate the exclusion of critical views from debate within the physics community. We are sure that you, as a fellow physicist, share our high expectations for our organization.

Jeff has not taken his dismissal to court, preferring first to give individuals and organizations such as APS the opportunity to speak out publicly for justice. Forgoing this opportunity would take the matter out of the hands of the physics community and would likely put APS in the awkward position of co-defendant. (When Jeff was fired, he was banned from APS headquarters as well as AIP headquarters, being told never to reenter the American Center for Physics "at any time, for any reason.") What would APS's lawyers say? "Firing Jeff was perfectly legal"? "It's all AIP's fault"?

APS is known for speaking out when scientists in other countries suffer reprisals for expressing their views. We must not give repressive foreign authorities the opportunity to question our credibility and dismiss our protests as hypocritical because we are silent about repression within our own organizations.

We will, of course, report the Council's response in this case to the hundreds of concerned APS members, physics graduate students, and people outside of physics who have been following the case with great interest. Thus, this is not only an opportunity to do something for justice close to home, but also an opportunity for APS leaders to build their reputation among both physicists and human rights activists.

Enclosed is a copy of the human rights committee report mentioned above. Marc Brodsky's statement to the committee (and to others) is posted on the web at *http://disciplinedminds.com*. We asked Jeff if he had any testimonial evidence from physicists that he did good work at *Physics Today*, and a copy of what he sent us in response is enclosed. We thought you would also appreciate the perspective of the enclosed article from *Physics World* magazine.

We would appreciate hearing your views. Please feel free to contact any of us — our addresses and telephone numbers are at the top of this letter. We would, of course, be happy to provide additional information. We have written to other members of the Council to ask their views, too. Please fell free, as well, to contact Jeff directly, at 202-537-3645 or jeffschmidt@alumni.uci.edu.

Best regards,

Michael A Lee

For Talat Rahman, Michael A. Lee, George F. Reiter, Denis G. Rancourt, and Fay Dowker

HUMAN RIGHTS COMMITTEE
of the
PLASMA SCIENCE AND APPLICATIONS COMMITTEE
of the
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Co-Chairman:
Dr. Wallace Manheimer
Code 6707
Naval Research Laboratory
Washington, DC 20375

Co-Chairman:
Prof. Victor Granatstein
Department of Electrical
and Computer Engineering
University of Maryland
College Park, MD 20742

Report of the human rights committee, ICOPS Banff, May 2002

Last October's human rights report (A) mentioned the firing of Jeff Schmidt, an editor at Physics Today. Many people thought he was fired for the politics he expressed in a book he wrote *Disciplined Minds*, a book which claims professional are regimented to toe the 'company line' in various ways. Many hundreds of individual scientists wrote to Physics Today to protest. These are documented on a web site http://disciplined-minds.com. We wrote to Marc Brodsky of AIP to request more information (B), and his response (C) is enclosed. He claimed that Schmidt was fired for using AIP time for private purposes (ie free lance writing). Our initial impulse was to think in terms of some sort of compromise between Schmidt and AIP, and we gently suggested this by sending each of them our report. At the time we also thought the matter would be resolved by the courts.

A few months ago, we got a letter from Schmidt, we have had several others since then. Among other things he told us the dispute was not being resolved in the courts. Also he told us he would still be willing to reach a compromise with AIP and that he has been unable to gain other employment, largely due to the way he left AIP, ie no credible reason, no recommendation. Also he mentioned that his savings were largely depleted. We decided to investigate further.

His web site makes several rather shocking allegations, among them:

1. Schmidt was given a gag order and told not to talk critically about AIP.
2. He was told that private conversations of any kind were not permitted in the work place.
3. He was fired despite being given many good ratings, promotions and salary increases during a 19 year career.
4. The excuse given for firing him was fraudulent in that many other AIP employees were allowed to, and in fact, even encouraged to do extracurricular work of a scholarly nature as long as their AIP deadlines were met.
5. He had gotten in trouble at AIP for pushing for more diversity in the workplace.
6. After being fired he applied for unemployment benefits from the Maryland Department of Labor. AIP tried to prevent him from collecting, but when it came time to make its case against him, did not show up to do so.

If true, these statements would be a sweeping condemnation of employment practices at AIP, an organization we all feel we are part of in some way.

To further examine this, we contacted 3 former employees who were familiar with the situation, William Sweet, Paul Elliott, and Jean Kumagai. Sweet's and Kumagai's letters are included (D and E). Elliott sent a very long statement which we summarize here (F). They all confirm these allegations (except for 6 which we were unable to verify). In fact, if anything the situation was worse than described on the web site. Once we had these, we wrote once more to Marc Brodsky. Our letter is included (G). So far he has not responded, even though it took him only a day to respond to our first letter.

Our take: It is possible that Schmidt was fired for the politics expressed in the book. Many physicists believe this and have made their concerns known to AIP. It is also possible, and in fact seems more likely to us, that he was singled out for his efforts to bring more diversity to the workplace and for other instances of workplace activism. Then, despite a long and productive career there, AIP subjected him to a two year long smear campaign designed to damage his standing and reputation there. It then found a totally bogus reason to fire him without giving him the benefit of honest evaluation or an opportunity to defend or explain himself. What is not possible is that Schmidt was fired for the reason stated by AIP.

We feel that this is inexcusable and an appropriate area of concern for our committee. This is especially true where it is in a sense a matter internal to our own community. We feel it is vital that AIP and other APS and IEEE organizations treat their employees according to the highest standards, not like galley slaves. Accordingly we ask ExCom to pass the following resolution:

RESOLVED

The Plasma Science and Applications Committee of the IEEE deplores the firing of Jeff Schmidt by AIP. An investigation by our Human Rights Committee has convinced us that his termination was improper and should be reversed. We urge AIP to rehire Schmidt, openly welcome him back, cease all harassment of him, and give him back pay for the period of his forced unemployment

Wallace Manheimer

Victor Granatstein

D

X-Sender: wsweet@shogun.ieee.org
Date: Tue, 12 Mar 2002 15:57:23 -0500
To: Wally Manheimer <manheime@ccs.nrl.navy.mil>
From: William Sweet <w.sweet@ieee.org>
Subject: Re: Disciplined minds

Dear Mr. Manheimer,

I cannot comment directly on the circumstances of Jeff Schmidt's dismissal, since I left the magazine many years before it occurred. During the eight years I worked as a colleague of Jeff's a Physics Today, I knew him to be a conscientious, competent, and consistently hard-working employee of the magazine who always got done what he was expected to get done on time and well.

Regarding the question of working on office time, it was my own experience at Physics Today that one was permitted to do freelance work or pursue personal projects, as long as they did not interfere with or detract from one's responsibilities to the magazine. I did a great deal of freelance work openly, much of it appearing in publications read regularly by Physics Today staff.

My impression is that in journalism and publishing generally, it is taken for granted that staff--and especially younger staff--will do freelance work or work on scholarly projects, partly to further their careers, partly just for the money, and partly for the joy of it. It is not uncommon, indeed, for organizations to positively encourage such work.

For that reason alone, I strongly suspect that the stated reasons for Jeff's dismissal were spurious. As stated at the outset, however, I am not in position to speculate about what the real reasons might have been.

Sincerely,

Bill Sweet

> Dear Mr. Sweet:
>
> I am the co-chair of the human rights committee of IEEE Plasma Science and Applications Committee. Recently the firing of Jeff Schmidt over his book *Disciplined Minds* has come to our attention and we are looking into it. Jeff has said we could contact you. For our report (to be delivered to our executive committee in the ICOPS meeting in Banff, May 24) we would like to get the impressions of other coworkers and former coworkers at AIP. If you could give us your impressions of what transpired that would be very helpful to us. Particularly Jeff said that you could describe your own experience in doing free lance work while you were employed at APS. I would appreciate if you would give me your take in a return email, especially on the items I mentioned. I will be away for a week and a half or so, but hopefully you can get back to me. I may also give you a call when I get back.
>
> Thank you for your attention to this.

S 000633

E

X-Sender: jak.interport@pop.rcn.com
Date: Sun, 21 Apr 2002 18:45:42 -0400
To: manheime@ccf.nrl.navy.mil
From: Jean Kumagai <jak.interport@rcn.com>
Subject: more about Jeff Schmidt

Dear Wally,

Thanks so much for giving me the opportunity to help your human rights committee do something on behalf of Jeff Schmidt and free expression within the science community. In my previous message, I gave brief answers to your questions about Jeff's promotions and pay raises and about the gag orders at Physics Today. Below I've provided greater detail on these two issues. I hope you find this useful for your investigation. Please let me know if I can be of further assistance.

All best,
Jean

I was a member of the Physics Today editorial staff for ten years, leaving just six months before Jeff was fired. As is the case in many workplaces, he and I and other staff members routinely discussed our interactions with management, including performance reviews, pay raises, editorial disputes, and so on. That's how I know that AIP always gave Jeff job-performance ratings of "meets job requirements" or "exceeds job requirements." (One year, management lowered his rating from "exceeds job requirements" to "meets job requirements," despite the lack of evidence that the quality or quantity of Jeff's work had fallen. Jeff contended, and I agree, that they were punishing him for his workplace activism.)

As for promotions, I attended the staff meeting where the editor announced that Jeff had been promoted. Bill Sweet received a promotion at the same time, and I remember Jeff and Bill humorously congratulating each other while the rest of us applauded. Promotions at AIP are not automatic, but are based on careful scrutiny of the employee's work. The same goes for raises. As a matter of policy, AIP does not give automatic cost-of-living raises, only merit raises. AIP would not have employed Jeff, promoted him, and given him merit raises for 19 years if he had not been doing his job to AIP's satisfaction.
I think it is crucial to note that AIP, like other employers, regularly scrutinizes the quality and quantity of each employee's work. Thus, during my decade at Physics Today, I saw coworkers put on probation, demoted, or fired for not meeting the magazine's standards. AIP never did any of these things to Jeff -- until they saw his critical writing.

In firing Jeff, AIP claimed that he had stolen from the company, referring to the opening lines of his book ("This book is stolen. Written in part on stolen time, that is.") This is a laughably baseless charge. In the opening paragraph of his book, Jeff explains that "written in part on stolen time" means "spending some office time on my own work." This describes common Physics Today workplace behavior, albeit with an attitude. At Physics Today there were no official break times; editorial employees were expected to meet their deadlines, and they took their breaks whenever they wanted along the way. All of Jeff's coworkers (including me) openly pursued personal interests during their work breaks, but Jeff was the

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only one who was punished for failing to make sure that 100 percent of his office time was work time. The difference was the nature of Jeff's break-time activities -- his workplace activism and critical writing.

Like many employers, AIP engaged in "speed-up," demanding that editors and other employees do more work in the same amount of time. Jeff was outspoken in opposing this, in the interest of both staff and readers, but he always adapted to the changing standard himself. When Jeff was fired, he told me that he was two months ahead of schedule in meeting the annual work quota that AIP had set for him -- that he had completed 12 months' worth of work in 10 months' time. Having observed his work style for ten years, I do not doubt this.

Management had to be fully aware of these facts, and therefore fully aware that Jeff's book about the politics of work was doing nothing more than expressing a critical attitude about work. But they fired him anyway, nine days after they learned of his book and its contents, a delay that indicates that their action was calculated rather than emotional. As you may have seen, on 5 April 2002 the Chronicle of Higher Education reported the numerous protests by physicists against Jeff's firing. The reporter apparently asked AIP CEO Marc Brodsky, What if the book's opening line was merely a rhetorical device? Brodsky responded, "Even if it was, it's not good for the morale of other employees." In other words, Brodsky admits that he was willing to fire Jeff simply for expressing what Brodsky considers to be a bad attitude. I think the evidence indicates that that is exactly what Brodsky did.

As for the gag orders, the one placed on Jeff was imposed a few days after the second staff retreat. The retreat had been billed as an opportunity for the editorial staff to get together and "brainstorm" about the magazine's content and direction. Much to our surprise and disappointment, however, the managers prepared a rather rigid agenda for the retreat, one not at all conducive to creative thinking and open discussion. Near the beginning of the retreat, after opening remarks by Physics Today publisher Charles Harris, Jeff asked if we could ask questions. Harris said no. Jeff then argued that staff members SHOULD be allowed to ask questions at a retreat. Harris angrily shouted "No, that's an order!", ending the discussion. When Harris later called on me to speak about my department, I criticized him for shutting Jeff up. Some others did the same thing. The staff was quite upset by the repressive atmosphere that management had established. Needless to say, nothing much was accomplished at the retreat.

The gag order instructed Jeff not to tell his coworkers that he was being restricted, but he showed the order to me and other coworkers anyway. That upset Harris, but also led to staff pressure that forced Harris to rescind the order after about two months (along with a similar order that had been imposed on another staff editor, Graham Collins).

The gag orders were soon followed by the ban on private conversations in the workplace, wherein Physics Today Editor Stephen Benka announced that all conversations between staff members had to be open to monitoring by managers. Unlike the gag order, the ban was not issued in writing but rather declared verbally to Jeff and another staff editor, Toni Feder. (Toni and I worked very closely to produce a department of the magazine.) I heard about the ban immediately from both Jeff and Toni. Although Benka announced the ban to Jeff and Toni, he said that it applied to the entire staff. Paul Elliott, another editor, overheard the announcement. The rest of the staff learned of it, ironically, through private conversations. Unlike the gag orders, the ban on private conversations in the workplace

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was never rescinded, even though Jeff formally appealed it to James Stith, a top official of the American Institute of Physics. I think the ban was aimed mainly at silencing Jeff and discouraging other staff members from talking to him.

Since leaving Physics Today in November 1999, and especially since Jeff's firing, I've often thought about the gag orders and the conversation ban and the generally repressive environment there. Unlike a lot of bad memories, though, these ones don't fade with time. I hope that the human rights committee will do whatever it can to obtain justice for Jeff. In so doing, I believe you will also be helping to improve the work environment at Physics Today, by compelling AIP to reconsider its policies and actions, and ultimately benefitting the science community at large.

F

Summary of Paul Elliott's email:

Paul Elliott worked in a neighboring office to Schmidt for just under 5 years, from 1995-2000. Schmidt was an editor for 14 years before Elliott arrived, which was just after AIP hired a publisher (for the first time), Charles Harris, and an editor in chief, Steven Benka. From 1995-2000, according to Elliott, Schmidt was well regarded by the PT staff, met all deadlines and other obligations. But Harris, and Benka particularly increasingly became openly hostile toward Schmidt from about 1995 through 1997. During that period, Schmidt was in the forefront of staff efforts trying to get PT to hire a more staff with more diversity (virtually the entire professional PT staff apparently was white male), as well as bring about other improvements in the staff's working conditions. This effort apparently led to the embarrassment of PT management in front of higher ups at AIP and the PT advisory committee (I suppose a bunch of senior physicists).

At about this time, in the fall of 1997, Charles Harris not only gave Schmidt a written and secret gag order, which Elliott saw, but gave one to another editor, Graham Collins, whom Harris also saw as troublesome. A month of so later, under pressure from PT staff, these orders were rescinded. However in January 1998, Elliott heard Benka angrily tell Schmidt that private conversations between members of the PT staff behind closed doors were forbidden and had to take place outside after business hours. After this, Schmidt kept a very low profile at PT. If he had been a "troublemaker" before this, he certainly ceased being one at this point-but, said Elliott, there was no let-up in management's hostility toward him.

Elliott said that many members of the PT staff, certainly including Benka, used the work day for other private purposes. Elliott worked 10 feet from Schmidt for 5 years and saw no evidence that Schmidt was doing anything but his job as an editor. He certainly was not visibly working on a book. Elliott even pointed out that in late 1998 Schmidt took a 6 month unpaid leave of absence, and in retrospect, Elliott surmises that it was probably to work on his book. During that period too, said Elliott, management continued to openly malign and denigrate Schmidt.

Elliott's conclusion was that PT editorial management thought of Schmidt as a trouble maker, subjected him to "a long term smear campaign followed by prejudicial termination on a fundamentally bogus charge", and fired him as an act of revenge without giving him a chance to explain or defend himself.

/

G

HUMAN RIGHTS COMMITEE

of the

PLASMA SCIENCE AND APPLICATIONS COMMITTEE

of the

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Co-Chairman:
Dr. Wallace Manheimer
Code 6707
Naval Research Laboratory
Washington, DC 20375

Co-Chairman:
Prof. Victor Granatstein
Department of Electrical
and Computer Engineering
University of Maryland
College Park, MD 20742

April 17, 2002

Dr. Marc H. Brodsky
Executive Director and CEO
American Institute of Physics
One Physics Ellipse
College Park, MD 20740

Dear Dr. Brodsky:

We sent you the enclosed letter concerning the firing of Jeff Schmidt and also enclosed is your response for which we thank you. We have continued to look into this matter, and we must say that with our current understanding of the situation, we find the response of AIP to be not satisfying to us. We have spoken to several people, and apparently employees at AIP are not fired for using company time for such private business as free lance writing, as long as all AIP deadlines were met. Schmidt and others have claimed that the expression 'stolen time' was not used to confess to larceny, but to emphasize the particular point made in the book. From what we know now, this seems reasonable to us.

As far as we are able to discern, Schmidt met all his deadlines at AIP and was a well regarded worker. Several people have claimed that internal records in Physics Today verify this.

There is one factual matter which we were unable to independently verify and we wonder if you could help us out. On his web site, Jeff Schmidt claimed that when applying for unemployment benefits, AIP tried to prevent him from receiving them, but when it came time for AIP to make its case to the Maryland Department of Labor, it did not show up to do so. We tried to verify this with the aforementioned department, but these records are confidential.

Let us tell you what we think may have happened. We are not certain, but this is the simplest and most reasonable explanation of the facts which we know. Around the end of 1997, in a meeting with AIP and Physics Today's external advisory committee, Jeff Schmidt embarrassed his supervisors at Physics Today by complaining to powerful outsiders about lack of diversity in the workplace. We can certainly believe that his supervisors would frown on his taking such a complaint so far outside the chain of command. In some organizations this might be grounds for dismissal, while in others it would be acceptable behavior. If Schmidt had been fired then, for that, we would be much less sympathetic to him. While unquestionably harsh, he would have suffered a serious consequence for what might have been regarded as a serious faux pas. The firing would have been honest on the part of his employer, he would most likely have learned from the experience, and the negative impact on his reputation would have been minimized. Instead however, AIP strung him along for more than two years, a time during which Schmidt was especially trying to keep out of trouble. Finally AIP found a bogus reason for firing him, and did so in a way that would do him maximum harm. This seems inexcusable to us, and an appropriate area of concern for our committee; particularly where it involves an organization which we all support and would hope lives up to the highest standards regarding its personnel.

Anyway, this is the way we currently see it and it is the way we will present it to our Executive Committee in mid May. Do we have it wrong? We invite your response. (Mail to government facilities being what it is, if you decide to respond, please fax WMM 202-767-1607; US mail to VLG okay)

There is one other thing. When we first looked into this matter, we thought the best solution would be some sort of compromise between you and Schmidt. That is why we sent both of you our initial report last October. Even at this late date, could that still be possible? Schmidt told us he would be willing to do so. Would AIP?

Yours very truly,

Wallace Manheimer

Wallace M. Manheimer

Victor L. Granatstein

Victor L. Granatstein

DECLARATION OF CHRIS MOHR

Chris Mohr deposes and says:

(1) My name is Chris Mohr. My home address is 655 Natoma Street, Apartment C, San Francisco, CA 94103.

(2) I work at Tenderloin Neighborhood Development Corp., as the Director of Fund Development. My business address is 201 Eddy Street, San Francisco, CA 94102. I have worked here since April 1995.

(3) I began working at *Physics Today* in or around February 1991 as an assistant editor. I left *Physics Today* in August 1993 to pursue an internship at a non-profit anti-poverty organization.

(4) My immediate supervisors were Barbara Levi, Gloria Lubkin, and Kenneth McNaughton. Terry Braun was the Director of Human Resources.

(5) While at *Physics Today*, I was responsible for editing the "We Hear That. . ." portion of the magazine which consisted mainly of articles about awards and obituaries. Usually, I edited about 5–10 obituaries per month and wrote 1-3 awards' articles per month. I also edited the calendar section of the magazine and copy-edited one to two feature articles per month.

(6) While at *Physics Today*, I wrote some pieces for small magazines, notably *Lies of Our Times* (now defunct). That magazine published one long piece detailing scientists' participation in the Gulf War ("The Gulf War and the Technologists," March 1992), as well as several shorter items. On this article, I spent upwards of 20 hours working on the article, of which at least 15 hours was spent at work. On other pieces I wrote while at *Physics* Today, I would generally write 80% of the article at work, and 20% at home. I did all the writing on my computer at work and read all the source material while at work

because it was based on the scientific magazines and publications received by *Physics Today*. I did this openly and spoke with co-workers about the article. No one ever said anything about my working on this piece.

(7) I also contributed to the monthly newsletter of my religious congregation. This usually consisted of synthesizing different e-mails from a monthly alert group into a short article. I also openly did this work during normal working hours at *Physics Today*.

(8) It was my understanding that AIP, as an institution, encouraged the practice of its employees doing outside writing. The Institute's history department published books of employees which were understood to have been written on company time. To my knowledge the Institute never had a policy against its employees pursuing and publishing writings outside the Institute, and doing such work on company time.

(9) In general, if I completed my responsibilities in a timely way, I was not given additional work to fill my time.

VERIFICATION

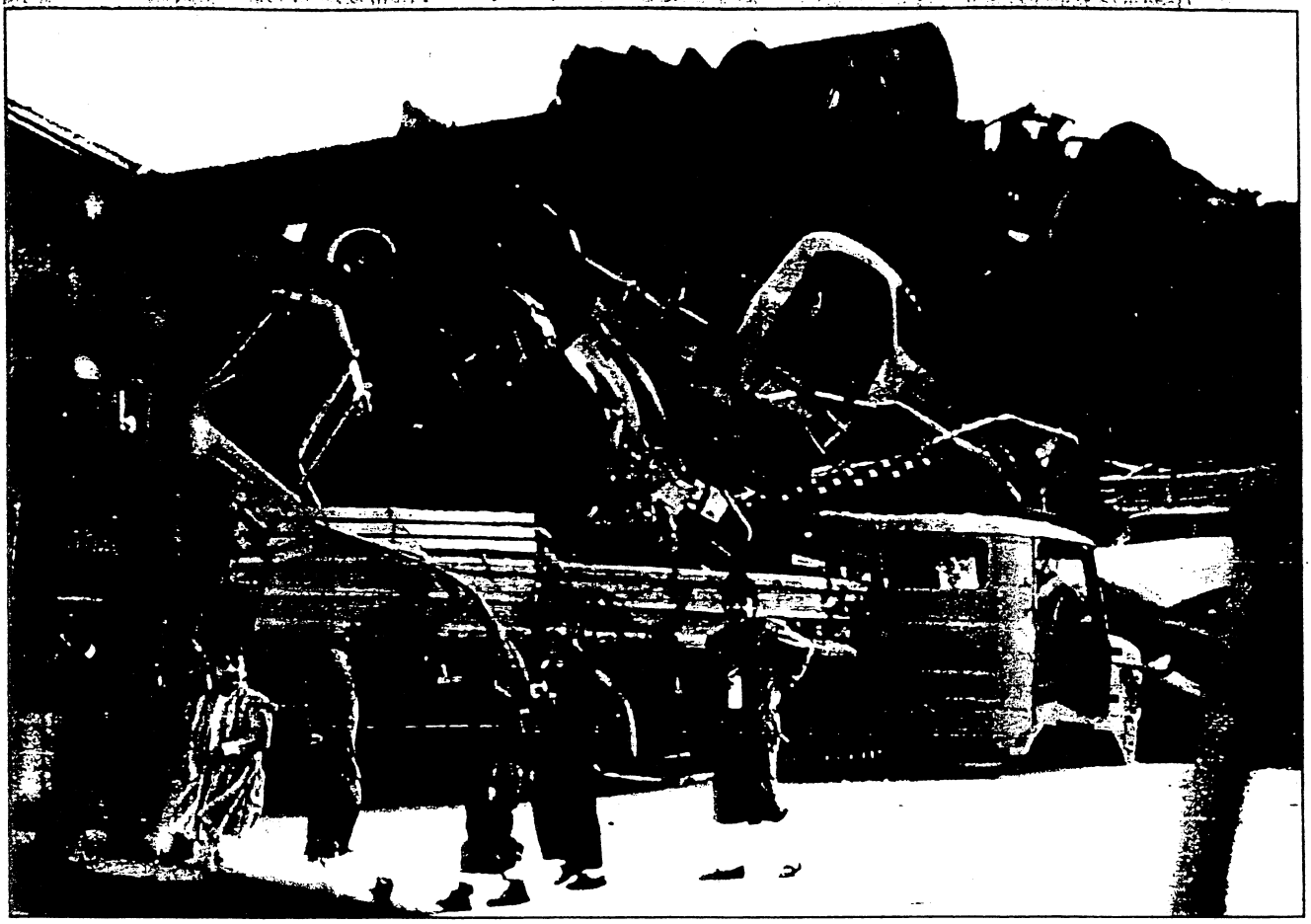
I hereby verify under penalty of perjury pursuant to 28 U.S.C. § 1746(2) that the statements contained therein are true and correct to the best of my knowledge, information and belief.

Executed on March 15, 2001.

Chris Mohr

Lies Of Our Times

MARCH 1992 A MAGAZINE TO CORRECT THE RECORD $3.00



Souvenir Hunting on the "Highway of Death"

The Gulf War One Year Later

S 000888

Sexism at the Times

Cuba, Salvador, Rally for Peace

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Cover: Kuwaiti children walk along "the highway of death." The area, according to the AP caption, is "frequently visited by tourists and locals looking for souvenirs." AP / Wide World Photos.

NOTICE TO SUBSCRIBERS:

Due to an error in the binding of copies of the last issue of *LOOT* (January-February 1992), a large number of copies were bound with a sharply creased cover, causing many to come apart in mailing.

Many subscribers received nothing but the last page of the magazine in their mailboxes; some received nothing.

If you were one of these and have not yet notified us, please call or write and we will ship you a new copy of the issue at once. We apologize for this inconvenience.

We also apologize for the delay in the production and delivery of this March issue. As you may notice, we have commenced using new hardware and software, producing, we think, a clearer, easier-to-read magazine. We hope you continue to enjoy reading *LOOT*.

Lies Of Our Times

A Magazine to Correct the Record

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Executive Editor Ellen Ray
Managing Editor William H. Schaap
Editor Edward S. Herman
History Editor William Preston, Jr.
Columnists and Contributing Editors
Nabeel Abraham, Noam Chomsky, Alexander Cockburn, Jane Hunter, Stephanie Jed, Richard McKerrow, Sandra Rattley, William Worthy, JoAnn Wypijewski
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Brian Tenenbaum
Associate Editors Nancy Watt Rosenfeld
Peter Rothberg
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To Our Readers

Lies Of Our Times is a magazine of media criticism. "Our Times" are the times we live in but also the words of the *New York Times*, the most cited news medium in the U.S., our paper of record. Our "Lies" are more than literal falsehoods; they encompass subjects that have been ignored, hypocrisies, misleading emphases, and hidden premises—the biases that systematically shape reporting. We can address only a sampling of the universe of media lies and distortions. But we hope *LOOT* will go a long way toward correcting the record.

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The Gulf War And the Technologists

Chris Mohr

A year after the Gulf War, the technical community that designed and built the weapons of Desert Storm has assessed the performance of their products and concluded that, despite a few flaws, the weapons worked quite well. The evaluations in the professional literature reveal much about the technical culture in the U.S. as well as about the weapons themselves.

Common to these evaluations in engineering, physics and aerospace industry publications is an unquestioning acceptance of U.S. government policy toward Iraq. When policy is mentioned at all, it is solely in the official terms dictated by the government: Kuwait was to be liberated, Saudi Arabia protected, (American) lives saved, and so on. In the literature the war is treated as a technical problem to be solved with the application of weapons technology. In such a context, moral and political questions are irrelevant. The only questions askable involve technology: Did the weapons work? How well? What were their flaws?

A Special Report

One of these journals is *Spectrum*, whose September 1991 issue was a special report, "Gulf Legacy: War as a Test Lab." *Spectrum* is published monthly by the Institute for Electrical and Electronics Engineers (IEEE), primarily for its members, and has a circulation of more than 300,000. With many contributors from the military and military contractors, the special issue shows the culture in which IEEE assumes its readers will feel comfortable. And no wonder: Some 60 percent of federally funded basic R&D is supported by the Pentagon, according to a 1991 National Science Foundation report. And some one-third of all scientists and engineers in this country outside of biomedical fields work on defense projects, according to a September 1991 study by the Carnegie Commission on Science, Technology and Government. For example, the Georgia Tech Research Institute is funded primarily by the military. According to GTRI's 1991 annual report, the U.S. Air Force provided 29 percent of its funding, the Army 24 percent, the Navy 4 percent, and other defense agencies 25 percent—or 82 percent overall. Such is the technical culture in the U.S., as *Spectrum* well knows.

The special issue of *Spectrum* has a great deal more interesting material than can be noted here. However, the IEEE's attitude is best shown by the issue's editors, John A. Adam and Glenn Zorpette, both on staff at *Spectrum*, in their introductory essay: "Differences in leadership and morale counted heavily, but first and foremost was the force of western technological might—before and during the war." That the sheer amount and intensity of western bombing was unprecedented they did not mention. Along the same lines, in an essay entitled "Technology: The edge in warfare," Norman R. Augustine said, "U.S. forces used technology to overcome numerical disadvantages in manpower and material, and to minimize the loss of life among U.S. and allied forces." He warned against cuts in funding for weapons now in development and alerted readers to what he calls "near-fatal obstacles in our hardware acquisition process," which delayed the Patriot missile. Augustine's position is unsurprising, since he is the chairman and CEO of Martin Marietta Corp., which, as he points out, assembles the Patriot under a contract with Raytheon.

Other technologies were less heralded than the Patriot during the war, but were clearly more significant. A new airborne radar system, the Joint Surveillance Target Attack Radar System (Joint Stars), was deployed to track ground targets. As several contributors point out, the Stealth fighter-bombers flew only with support from radar-jamming EF-11s flying behind, so stealthiness is still not fully proven on its own. And Major Tim Gibson, a computer science instructor at West Point, describes the four computerized command and communications networks set up and linked together in the desert. Hundreds of satellite dishes were deployed: within three months the number of users grew from 18 to more than 80.

In perhaps the magazine's most startling essay, Janet Morris, the "research director for nonlethality" at the U.S. Global Strategy Council in Washington, D.C., and a consultant to Lawrence Livermore National Laboratory, where nuclear and other weapons are designed, advocated a new destructive technology called nonlethal weaponry. As a good member of the technical culture, she failed to question why the military needs such technologies. Instead she sold the merits of what could be called New Age weapons. "Technology now offers such options, and they are life-conserving, environmentally friendly, and fiscally responsible," she said. Others would disagree; such weapons could include jellied superacids "potentially millions of times more potent than hydrochloric acid," and polymer agents to choke engines or glue weapons. Apparently such agents would be dumped on tanks or trucks only when their drivers are in the mess hall, where they will not be burned, choked, or glued themselves.

Some Other Examples

Optics and Photonics, the membership journal of the Optical Society of America, confined its attention to a single narrower topic in its war review, the cover story of the November 1991 issue entitled "Electro-Optics in Desert Storm." Electro-optic devices used in the Gulf War provided identification of friend or foe, night vision and other surveillance abilities, obstacle avoidance for low-flying helicopters, and chemical agent detection. The article's three authors, B.D. Guenther, R. Buser, and W. Morrow, work for various labs run by the Army, and they explicitly identify with the military: "The success of the Coalition's electro-optic systems demonstrated the need to preserve our technological lead. The problems encountered uncovered the need for future development of improved electro-optic capability to support our distinguished military forces." By publishing such pieces, the Optical Society becomes an advocate for the military rather than simply a neutral professional organization.

The October 21, 1991, issue of *Aviation Week and Space*

Chris Mohr is a writer and editor in New York City.

Technology featured 29 articles on the cover topic, "Mixed Signals for Electronic Warfare." *Aviation Week*, published by McGraw-Hill for aerospace industry professionals and other interested readers, features military topics as part of its regular coverage, so this issue is not especially unusual.

And the writers, who are employees of the magazine and not the military, aim to give a fair assessment of "electronic warfare," including past failures, recent successes, and possible future cutbacks. Still, the lead essay by the issue's editor, contributing avionics editor Philip J. Klass, is positive about the war: "The recent Persian Gulf conflict served as a showcase to demonstrate the effectiveness of a variety of electronic warfare techniques developed since tactical aircraft first encountered Soviet radar-guided missiles 25 years ago in Vietnam." Notice that Klass describes a conflict between weapons, not a war fought by people.

AP / Wide World Photos



U.S. soldiers surround Iraqi who surrendered because, the AP caption said, "he feared the Kuwaiti army.... The Americans turned him over to the Kuwaitis...."

Of the professional magazines I surveyed, only one, *Technology Review*, attempted to look at some of the larger questions absent from the others. *TR* is published by the MIT alumni association. The May/June 1991 issue featured a lengthy article by Michael T. Klare, an associate professor at Hampshire College and the director of the Five-College Program in Peace and

Tourists as Targets

In "Tourists, the Peacetime Target of a Shipful of Military Magic" by Douglas Martin (*New York Times*, January 10, p. C1), the entire space above the fold of the "Weekend" section's front page was taken up by a picture of planes and tourists on the deck of the Intrepid Sea-Air-Space Museum, the war museum on the old aircraft carrier in the Hudson River.

The article's tone was breezy: Martin wrote that a submarine "is only one of tons and tons of military attractions at the Intrepid," and gushed, "There is so *much* to see [his emphasis]." He parenthetically considered the two cannons aimed at midtown Manhattan as "not necessarily a bad idea." Following his example, the reader could conclude that weapons are to be giggled at, what with "the cold war rapidly becoming a piece of nostalgia," as he phrased it.

Martin must not read the paper's front section. He failed to connect the presence on the Intrepid of parts of the types of missiles used "to punish Iraq" with the ongoing wars in the world and the continuing militarism of the U.S. government.

In case the reader still had not understood, near the end of the article Martin wrote, "But go see for yourself, particularly if the unexpected boredoms of peace are weighing a tad heavily. The Intrepid takes you back to boom-boom. John Wayne, and simple values that, when all is said and done, have kept the United States alive and kicking like a colt for almost 216 years." Perhaps this was meant ironically, but it is more likely simple grandstanding and cheerleading for the U.S., as well as a lament for the simpler days of the Cold War, before all this boring peace broke out.

Not all of us see the Intrepid so giddily.

During the Military Book Fair held on the Intrepid May 31, 1991, a group of Quakers from Manhattan staged a vigil for peace there, holding signs with slogans such as "Publish for peace or perish by war." For four hours under a blazing sun, we stood as busloads of children and handfuls of editors and writers passed by. The security guards asked us several times to move, but they never called the police despite threatening to do so. A German couple—the sort of tourists the headline was aimed at—had seen the shiny planes on deck from afar and wanted to go aboard for a closer look. Our presence deterred them, though, as they were really for peace, and they left without going in.

Martin's article says quite a lot about how the *Times* would have us view the world, even in our own backyard. An article on a local tourist attraction becomes an occasion to gloat about how this country acted to "punish Iraq," to suggest that peace is here and it's boring (both questionable assertions), and to celebrate John Wayne and militarism.

—C.M.

World Security Studies, on evolving military strategy in the wake of the Gulf War. Primarily he details the military's current doctrine, called "mid-intensity conflict" to distinguish it from "low-intensity conflict" of Central American and African wars and "high-intensity combat" of all-out war.

Klare wrote, "Like Desert Storm, future mid-intensity conflicts are likely to be rapid-paced and high-tech, entailing unrestrained use of the most sophisticated weapons. In essence, the United States will fight rising Third World powers by wielding weapons designed for war with the Soviet Union." By critiquing policy, Klare violates the rules of technical culture, but he is not in fact a technologist.

The Humane Engineer

In the July 1991 issue, *TR* did, however, carry an essay called "Engineers and the Nintendo War" in the column "The Humane Engineer." Its author, Samuel C. Florman, a writer of several books including *The Civilized Engineer*, said,

> Operation Desert Storm differed from previous wars by revealing in our society a heightened concern for individual human lives. How striking it was that President Bush, General Schwarzkopf, and other political and military leaders shied away from talk of killing. There was not only an unprecedented effort to minimize the casualties—at least among the allies—but also a studied determination to avoid discussing them. There was death and suffering aplenty, but, perhaps for the first time in the history of war, nobody wanted to talk about body counts.... Our leaders carefully crafted their Desert Storm pronouncements to reflect the concerns of a citizenry that wanted war but not bloodshed.

With all due respect to Florman, the past does provide examples of regimes that avoided talk of body counts. Such government behavior is usually called propaganda and covering up, but Florman apparently cannot believe that of his leaders. Fortunately, *TR* published a letter by Joel Weisberg, a physicist at Carleton College, in the November issue that corrected the record: "That this slaughter was barely mentioned in the media amidst the heroic chest-thumping shows how little value we place on human lives," Weisberg wrote.

TR also printed a lengthy interview on the U.S. space program with Martin Marietta's Augustine in the August/September 1991 issue. Here it said, "Probably no other aerospace executive commands such respect from diverse quarters." So despite its greater openness, even *TR* maintains its respect for the defense establishment.

Conclusion

This survey illustrates the way the technical culture works to evaluate problems on the terms dictated to its members by their employers. Perhaps the culture could change for the better if we managed to get the technologists to think more about the policies that drive their work. Then perhaps some of them would refuse to use their creative, technical talents for the pursuit of lopsided wars, and fewer of them might contribute to the system's propaganda. •

Sins of Omission

The Ustica Affair

On June 12, 1980, an Italian civilian airliner crashed at Ustica, Sicily, as it neared Palermo, killing all 81 persons aboard. Since that time there has been debate in Italy about the circumstances of the disaster, a widely held view being that the plane was shot down and that there has been an official cover-up of the facts. One further hypothesis, discussed for years and supported by evidence (see Flaminia Cardini, ed., *Ustica: la via dell'ombra*. Sapere due mila, 1990), is that the downing occurred as a result of miscalculations in an attempt by Free World forces to assassinate Libyan leader Muammar Qaddafi, who was scheduled to fly on an airliner in the close vicinity of the destroyed Italian plane. (A Libyan MIG was shot down in the course of the same incident.)

With an Italian film on the crash and its coverup ("*Il Muro di Gomma*," or "The Rubber Wall") now receiving substantial publicity in Rome, the *New York Times* finally deigned to recognize the event (Alan Cowell, "Italian Obsession: Was Airliner Shot Down?" February 10, 1992, p. A7). Several elements of the *Times* rendition of the story are notable. First, the issue is categorized as an "obsession," which puts it in the class of the irrational (in contrast with U.S. "concern" over Libyan "terrorism," etc.). Second, the cover-up is described as "purported," although the *Times* account does go on to note that "successive inquiries" have charged a coverup and that investigating magistrate Rosario Priore warned air force officials in January that they face charges of treason and obstructing justice if they continue to fail to supply information.

The third point of interest is that nowhere does Cowell or the *Times* mention the hypothesis that this tragic error may have been a result of an attempt to murder Qaddafi. Accusations against Qaddafi are reported freely in the *Times*, but an attempt to kill him by the United States and its allies may be reported only when admitted by the western authorities themselves.

—Edward S. Herman

Fear of Terrorism or "Anti-Terrorism"?

In April 1991, following four political assassinations within a month, the Aylwin government of Chile announced plans to form an "anti-terrorism" unit. As reported in the *New York Times*, the important news associated with this announcement was the assassination of rightwing Senator Jaime Guzman and his funeral, attended by Aylwin and Pinochet; the "outcry against terrorism"; and the question of whether the government would have the will to fight terrorism. The article closes with a long quote by a Guzman associate doubting "that the government is capable of handling terrorism" (Nathaniel Nash, "Chileans Plan Anti-Terror Drive," April 5, 1991, p. A6).

In the *Financial Times*, an entirely different focus is evident in the title of their article: "Chilean fears over anti-terrorist unit" (Leslie Crawford, April 16, 1991, p. 6). It features the pressure of Pinochet and the army, "lobbying hard to be included in a new

S 000892

DECLARATION OF WILLIAM SWEET

William Sweet deposes and says:

(1) My name is William Sweet. My home address is 469 Marlborough Road, Brooklyn, New York 11226.

(2) I currently work at IEEE Spectrum magazine as Senior News Editor. My business address is 3 Park Avenue, 17th Floor, New York, N.Y. 10016.

(3) I have been a journalist (writer/editor) for 25 years. My first jobs were with a financial newsletter in Manhattan, then Congressional Quarterly Inc. in Washington, D.C. I began working at Physics Today as an associate editor in March 1984 and worked at the magazine until 1992 or 1993. My immediate supervisor was Gloria Lubkin, who was News Editor and then Editor-in-Chief.

(4) Upon being hired, I asked the Editor in Chief, Hal Davis, whether I could pursue freelance projects while I worked at Physics Today. Davis said that that would be fine as long as I did not attach Physics Today or the American Institute of Physics to anything I wrote. I also confirmed with Human Resources, that I would have unlimited long distance telephone privileges. At the time, Theresa Braun was the director of Human Resources.

(5) Physics Today had an exact way of defining peoples' jobs. If you did your job, then you were left alone. Editors were expected to edit two articles a month. Writers were expected to write four pages per month, or one page per week. In theory, if I wrote four pages in one week, I could then do whatever I wanted for the remainder of the month.

(6) While at Physics Today, I worked on a number of different freelance projects while at work, including regular articles for The Bulletin of Atomic Scientists,

which many of my colleagues saw. I worked on these projects openly, often discussing the different projects with co-workers, using my office computer and the magazine's library for research.

(7) In 1989, I wrote a controversial article which was published in MIT's Technology Review, in which I suggested that the Chernobyl accident was actually a nuclear explosion. After it was published, a number of articles were written in response and I received a fair amount of publicity. Soon after, AIP's clipping service collected many articles commenting on my Chernobyl piece. I know this because my colleague, Barbara Levi, who had a similar but slightly more senior job, called me into her office, gave me a large stack of clippings about my Chernobyl article, and said, "this is what happens when you use the term nuclear explosion." I noted that, even though the Chernobyl article itself did not identify me as an editor of Physics Today, or as an employee of AIP, many of the articles did so. No one from management warned, reprimanded, or disciplined me in any way, and I was never told to refrain from writing controversial pieces. I continued my freelance work throughout my time at Physics Today.

(8) In my experience , freelancing on an employer's time (and using an employer's resources) is and was ubiquitous in the newspaper and periodical industry. It generally is taken for granted that reasonably ambitious people will use company time, long-distance telephone privileges, research facilities, and the company's computers, to further their own writing careers. The employer benefits from such a practice as these writers will give the magazine the right of first refusal for publication. Freelance work also can increase a staff writer's stature and lead to valuable spin-off projects for one's employer. -Indeed, my MIT article about Chernobyl led to a tip that resulted in my writing a major invesrigative piece on a closely related subject, which Physics Today published.

VERIFICATION

I hereby verify under penalty of perjury pursuant to 28 U.S.C. § 1746(2) that the statements contained therein are true and correct to the best of my knowledge, information and belief.

Executed on March 15, 2001.

William Sweet

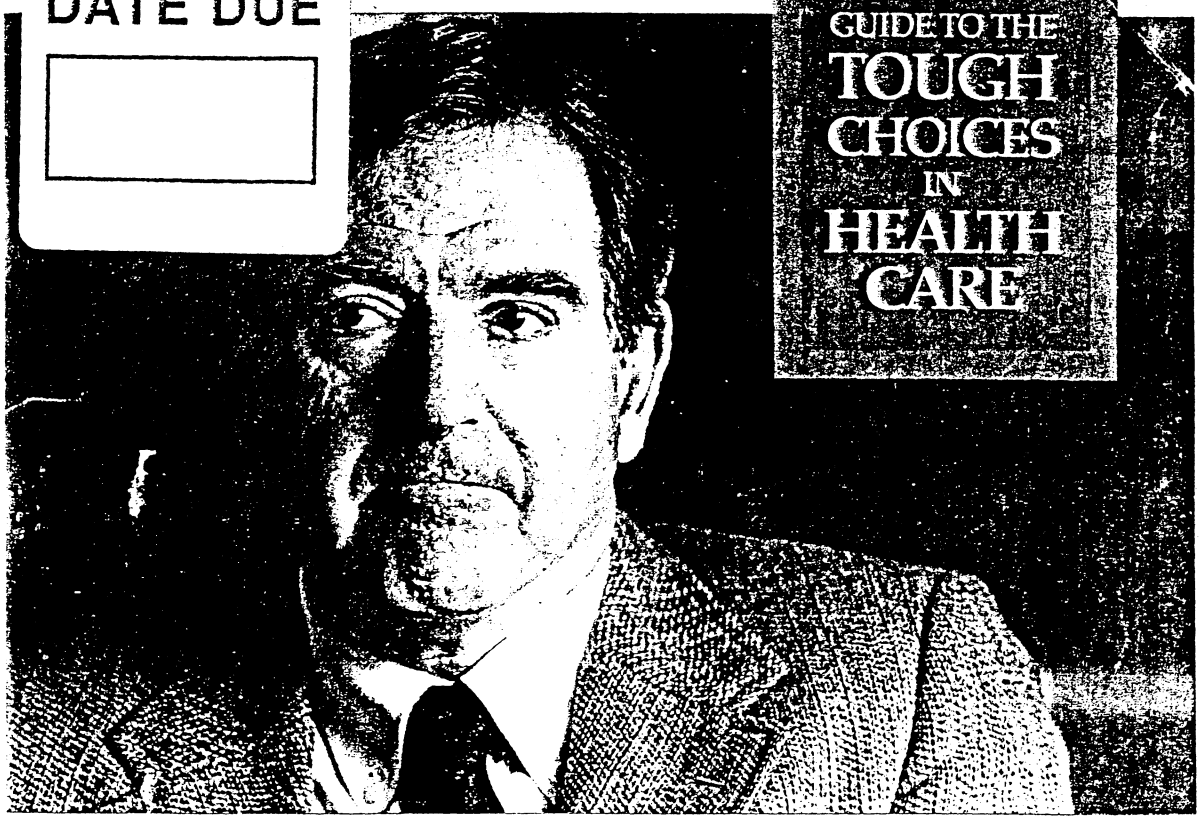
MIT REACTS TO COLD FUSION ■ THE GAIA HYPOTHESIS: IS THE EARTH ALIVE? ■

Technology Review

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ONE DOCTOR'S GUIDE TO THE TOUGH CHOICES IN HEALTH CARE



An Interview with Arnold Relman of the New England Journal of Medicine

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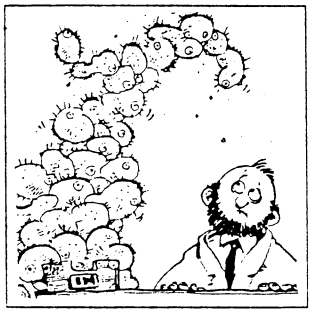
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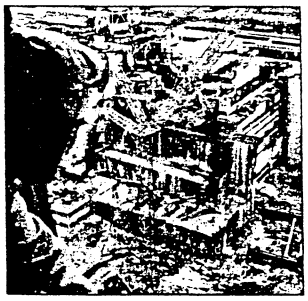


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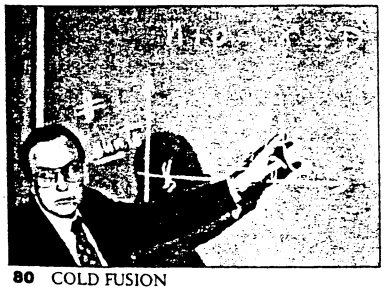
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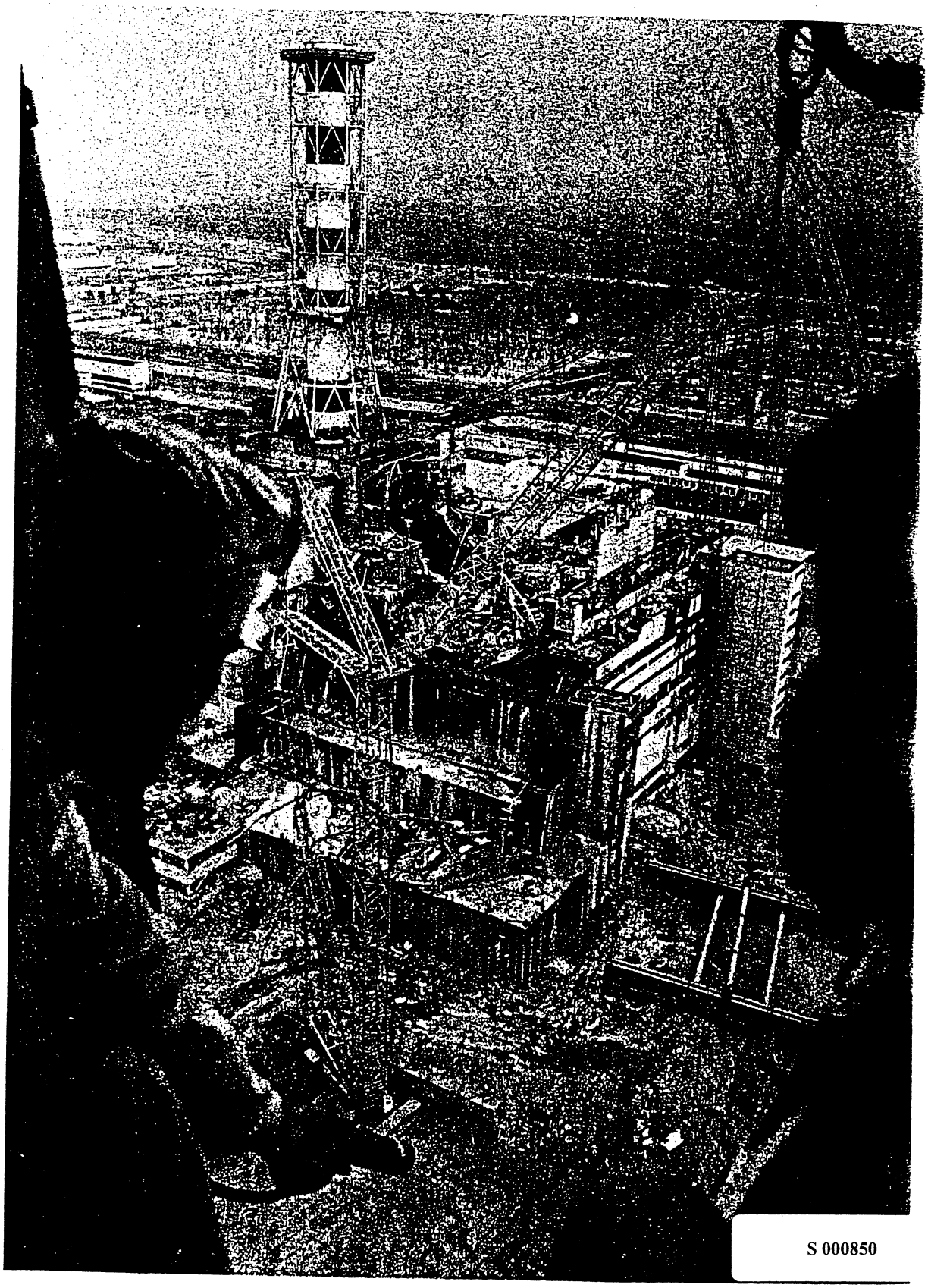
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PHOTOGRAPH: IGOR KOSTIN, NOVOSTI PRESS AGENCY

BY WILLIAM SWEET

Chernobyl

What Really Happened

Soviet technical fixes adopted since Chernobyl don't eliminate the possibility of a recurrence—and may make one more likely.

THREE years after the April 1986 nuclear catastrophe at Chernobyl, this is an opportune time to take stock of the accident, the technical measures the Soviets have taken to improve reactors like those at Chernobyl, and the implications of the accident for other types of reactors. As the shock of the accident has been absorbed, Western experts have become noticeably more willing to voice their concerns, air disagreements about technical issues, and state the truth exactly as they see it.

Soviet officials turned immediately to reactor experts in the West for advice. The Soviets made a remarkably full disclosure of their knowledge about the accident at a September 1986 meeting held under the auspices of the International Atomic Energy Agency in Vienna. During the next two years, they invited at least a dozen outside experts to come to the Soviet Union for a firsthand look.

Until recently, however, the Western analysts talked mainly with each other, and when they reported their findings in official reports or in articles for the public, they tended to couch their conclusions in cautious bureaucratic language. Obviously, they did not want to jeopardize their delicate relations with the Soviet Union and embarrass their hosts. And they were wary of the impact their statements would have in their own countries.

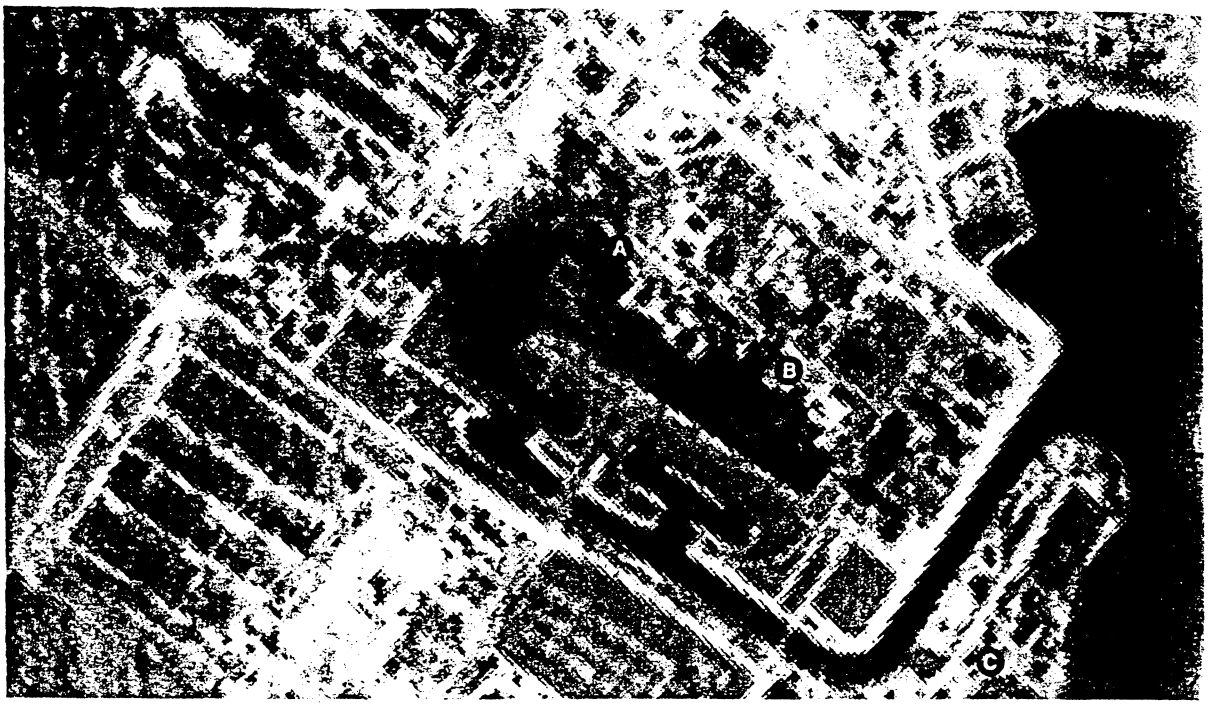
That reticence has declined with time. To get a snapshot of current expert opinion, I conducted extensive interviews with staff members of the Nuclear Regulatory Commission (NRC) who studied the accident, two former NRC commissioners, members of a Department of Energy (DOE) study team, leading Canadian reactor experts, and scientists from industry, academia, and national laboratories.

What follows represents an effort to reach a consensus view of the accident. The central conclusion is that a runaway nuclear reaction set off a chain of events that severely damaged the reactor core and surrounding structures. This damage set the stage for a second explosion, which was much more violent than the first and almost certainly was a full-fledged nuclear explosion.

Because many factors could have set this chain of

A technical crew monitors radiation levels over Unit 4 soon after it exploded.

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events in motion, the technical fixes adopted by the Soviets do not preclude the recurrence of an equally catastrophic event at a Chernobyl-type reactor. Some of the fixes may even increase the probability of a future catastrophe.

Ever since the first nuclear power plants were built in the 1950s, the industry has insisted they can't explode like bombs. Chernobyl casts doubt on whether that is true of all power reactors. Of the plants operating in North America, however, only the Canadian plants are susceptible to a Chernobyl-type accident.

The possibility of such an accident in a U.S. reactor is vanishingly small. Here, the worst-case scenario envisages that a loss of coolant would lead to a buildup of heat because of continuing reactions in the fuel. The fuel would melt and burrow through the plant bottom into the earth.

The Chernobyl accident was fundamentally different. After the coolant was lost, or some equally serious event occurred, nuclear reactions escalated rapidly and uncontrollably. They kept doing so until the plant's structure disassembled—that is, until Chernobyl Unit 4 exploded.

The RBMK Reactor

The Chernobyl reactor is an RBMK, which is a derivative of the reactors built to produce plutonium for the first Soviet atomic bombs. Since those plants were military machines, public and occupational safety received relatively short shrift in their design. While the United States sought from the outset to assure civilian control of nuclear technology, and established the NRC in the early 1970s to independently regulate power reactors, Soviet development of both plutonium and power reactors remained under narrow bureaucratic authority until after Chernobyl. As a result, the Soviets designed a reactor that never should have been built, and they failed to familiarize its operators adequately with its defects.

The RBMK is a graphite-moderated, water-cooled reactor, built to be fueled while running. The reaction is driven by neutrons released as uranium atoms split. The uranium fuel is arranged in pins that are contained in 1,661 zirconium-alloy pressure tubes, which are imbedded vertically in a 2,000-ton pile of graphite blocks. The graphite slows down neutrons released by uranium fission, enhancing their ability to induce more additional fissions so the reaction can sustain itself.

Water, pumped up through the pressure tubes, comes to a boil in the middle of the pile, and steam is carried off to the turbine systems that generate electricity. Control rods penetrating the pile regulate the reaction rate—that is, the power level—by capturing neutrons and damping the unit's reactivity.

One of the RBMK's principal defects is that it tends to gain power rather than slow down when water is lost or converts to steam. In all the reactors licensed to operate in the United States, the fission

WILLIAM SWEET is author of The Nuclear Age: Atomic Energy, Proliferation and the Arms Race *(Congressional Quarterly, 1988). He writes frequently about nuclear arms control and disarmament for the* Bulletin of the Atomic Scientists *and other publications.*

PHOTOGRAPH: EOSAT COMPANY

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Far left: Three days into the accident at Chernobyl, color-enhanced satellite photos depict Unit 4 as a glowing hot spot (A). Also visible are Units 1 and 2 (B), as well as the site where the Soviets probably were building more reactors of the same type (C).

Left: Like Unit 4, Unit 1 was an RBMK reactor. The photo shows Unit 1's control board in June, two months after the Unit 4 disaster.

rate slows if water is lost, so the system tends to be self-correcting. In the RBMK, fissions increase if water converts faster than expected or if there is a sudden leak.

This highly undesirable feature, called a positive-void effect, can make the reactor go out of control. The effect is especially strong if the RBMK is operating at low power. Ironically, the reactor is much more prone to go out of control when it has been in operation for a long period of time and the fuel is relatively depleted.

Aggravating the risks of the positive-void factor is the fact that the unmodified RBMK has a slow and perversely designed control-rod system. As Chernobyl revealed, that system could not be counted on to respond quickly enough to sudden changes in reactivity, and inserting control rods might even increase rather than dampen reactivity.

A third major design defect is the RBMK's inadequate containment. The containment system is predicated on the dubious assumption that the worst-case accident would result from a rupture of a single major water pipe at the bottom of the pile, where water is pumped up through the pressure tubes. Thus, the designers compartmentalized the bottom of the reactor, and the newer versions of the RBMK have a pool underneath. In the event of a tube rupture in the lower part of the reactor, the pool condenses steam, prevents pressure from building up too high, and captures water contaminated by damaged fuel.

The top of the reactor, however, is left relatively defenseless in all the RBMKs built or under construction. While a gigantic steel slab weighing about 1,000 tons seals the top of the reactor, all the pressure and control tubes penetrate this cap. Surprisingly little pressure can lift it, breaking all the pressure tubes and destroying the control mechanism. No kind of containment surrounds the tube, control, and refueling systems at the reactor's top, so if it lifts, radioactive and irradiated materials escape directly into the poorly sealed building and hence into the environment.

According to a calculation by Herbert Kouts at Brookhaven National Laboratory, 6 pounds per square inch (psi) would lift the lid. A rupture of just several of the 1,661 tubes would dump enough boiling liquid into the reactor to exert 1,000 psi.

The Accident

The immediate events surrounding the destruction of Chernobyl make sense only if it is appreciated that the RBMK was designed to run at virtually full capacity for a year, whereupon it would be shut down for maintenance. Thus, the reactor is designed to face its worst self only when fueled for the first time and twice a year after that, as it is taken out of and put back into service.

At the first fuel loading, problems arise from the fact that "the large enriched uranium fuel load creates many critical masses in the core," as an NRC report puts it. "The control rod system alone is not sufficient to hold the core subcritical for the initial fuel loading. . . . [Therefore,] one supplemental absorber rod is loaded for every six uranium-fueled channels."

When the reactor comes out of operation for annual maintenance and again when it is restarted, it passes through the vulnerable low-power zone in which the positive-void factor is most dangerous. The situation would be particularly risky at shutdown, when the positive-feedback mechanism is even more potent because of high fuel burn-up.

April 25 was the eve of this annual maintenance period. As the crew took the reactor down, they were preparing to test whether residual flywheel energy in the turbines could provide temporary electrical power to control the plant if the reactor lost outside power. Evidently, because of an exceptionally good operating record, the crew members were cocky. And apparently because this test could be performed only during the annual shutdown, they were deter-

PHOTOGRAPH: SOVFOTO

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If the second explosion was nuclear, it would be deeply misleading to say that Chernobyl did not blow up like an atomic bomb.

mined to get it done. They therefore took a large number of reckless measures that disabled safety systems and put the reactor into its most unstable state.

"The presumption that this was an electro-chemical test with no effect on reactor safety seems to have minimized the attention given to it in safety terms," a report by the International Atomic Energy Agency (IAEA) concluded. "Authority to proceed was given to the station staff without the necessary formal approval by the station safety technology group. . . . The test could have and should have been conducted in such a way that the reactor tripped [shut down] when the test began."

Instead, when the reactor started to lose power before the operators were ready to begin the test, they disabled safety systems in an effort to keep the reactor operating. When the reactor was on the verge of shutting down spontaneously before the test had been completed, they removed virtually all the control rods, boosting the positive-void coefficient to about 1.5 times its normal value. As a result, the fuel load or some part of it went out of control. In less than a second, the reactor's power went from nearly zero to perhaps 50 to 100 times the plant's maximum rated capacity. Fuel melted and interacted with water and steam, and some fuel probably vaporized. Enough pressure was generated to lift the reactor lid, rupturing all the pressure tubes and control rods.

Descriptions of this initial explosion in the official literature differ significantly in nuance. All refer in some fashion to a steam explosion, but in one way or another they also make clear that a runaway nuclear reaction was the driving force. At least one report seems to suggest that this reaction alone may have sufficed to blow up the reactor building.

Treading cautiously, the NRC report says, "Within the context of a very strong power pulse, the Soviets could visualize an intense fuel/coolant interaction, i.e. a steam explosion."

The IAEA report, based on the evidence and analysis presented by Soviet experts, makes a somewhat more confident assessment: "The continuous reactivity addition by void formation led to a superprompt critical excursion." A superprompt critical excursion is a nuclear reaction that by definition will stop only when the reacting substance blows itself into pieces.

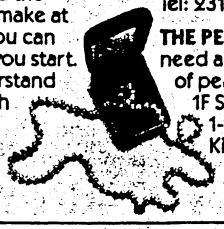
In its report, the Organisation for Economic Cooperation and Development (OECD), which in-

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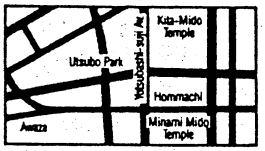
THERE'S NOTHING SIMPLE ABOUT A BUSINESS TRIP TO OSAKA

The complexities of doing business in Osaka can be overwhelming. Not only is the language foreign, but the rituals and business practices are quite different from our own. For this reason, the power of having just a little knowledge beforehand should never be underestimated.

WORD POWER. Try to type up all your ideas and the points you want to make at your meetings, so you can hand it out before you start. The Japanese understand written English much better than they do the spoken word.



DINING FOR DOLLARS. Kicho is one of the most well-known restaurants in all of Japan. It's also the absolute best, so it's always booked. If you are invited to dine there, cancel all plans and go. 3-23 Korai-bashi, Higashi-ku, Osaka. Tel: 231-1937.



THE PERFECT GIFT. If you need a special gift, try a string of pearls from Mikimoto, 1F Shin-Hankyu Bldg. 1-12-39 Umeda, Kitaku.

OSAKA CENTRAL. Although friendly, Osaka's taxi drivers speak almost no English, so get all your directions written in Japanese before you leave the hotel. It's an enormous, congested city, so make sure to allow time for traffic delays.

NORTHWEST NOTES. In addition to convenient, daily service to Osaka from over 200 U.S. cities and an all-747 fleet, we offer you something no other U.S. airline can—the knowledge that comes from over 40 years of helping people do business in Asia.

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The consensus is that improvements in RBMK reactors will reduce but not eliminate dangers from the "positive-void effect."

cludes most developed nations, calls the event a "reactivity-driven steam explosion." But elsewhere the same report casts doubt on whether a steam explosion took place at all: "The evidence that a steam explosion occurred during the Chernobyl accident is largely circumstantial although it is generally given as an accepted explanation of the damage observed."

The Second Explosion

According to eyewitness accounts and evidence presented by the Soviets, a second explosion occurred seconds after the first. Characterizations of this one are even more ambiguous. Some reports steer clear of the second explosion and barely mention it. The IAEA says it is unclear whether it was a second nuclear excursion or a chemical explosion resulting from the reaction of air with hydrogen freed by interactions between zirconium and water. The NRC says the second event, if it occurred, may have followed the plant's destruction and might have been a second nuclear excursion, a hydrogen explosion, or even an echo.

How to describe the second explosion was a sore point that divided NRC and Department of Energy researchers when they tried to collaborate on a joint report. The DOE group was much more cautious about the precipitating causes of the accident but quite certain that the second explosion was a pure nuclear excursion. The group's view was and is that this explosion was much more powerful than the first, and that it was this explosion that completed the destruction of the plant and blew parts of its core into the upper atmosphere.

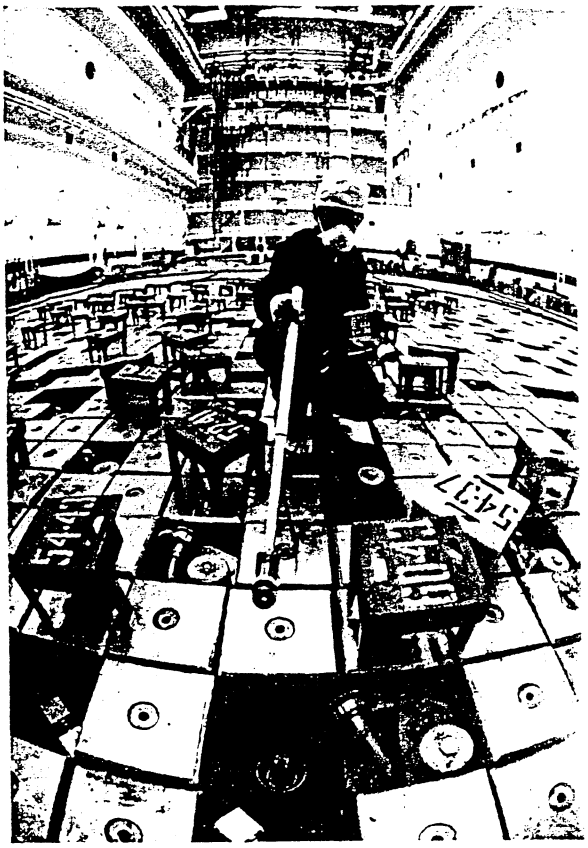
DOE's position is based on Soviet data and calculations contained in the IAEA report and presented as a graph insert to the report (*see chart on page 49*). These calculations indicate that the second explosion took the reactor to 400 to 500 times its normal maximum power. The figures are predicated on roughly this interpretation: the first explosion caused the core and surrounding structure to disassemble; and the core or some part of it reconfigured itself, formed into a critical mass, and exploded like a bomb.

When news of the Chernobyl disaster first reached the West, experts speculated that a graphite phenomenon, which had led to the destruction of a British reactor at Windscale in 1957, was the cause. But



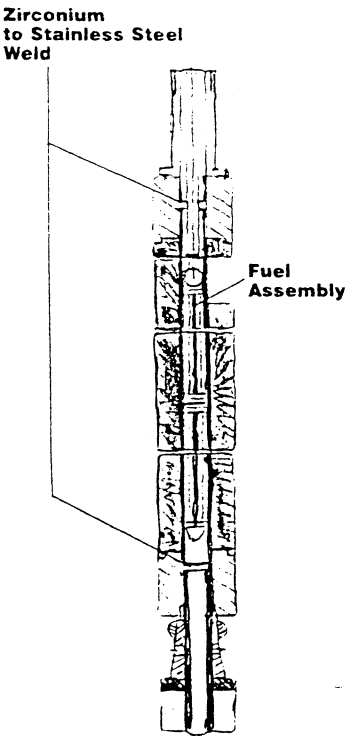
INTERNATIONAL RESERVATIONS **1-800-447-4747**, U.S. RESERVATIONS **1-800-225-2525**
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Right: In RBMK reactors, all the control and fuel rods penetrate the top. Surprisingly little pressure can lift this lid, breaking the rods. Here, a worker checks the top of Chernobyl Unit 1 in June 1986.

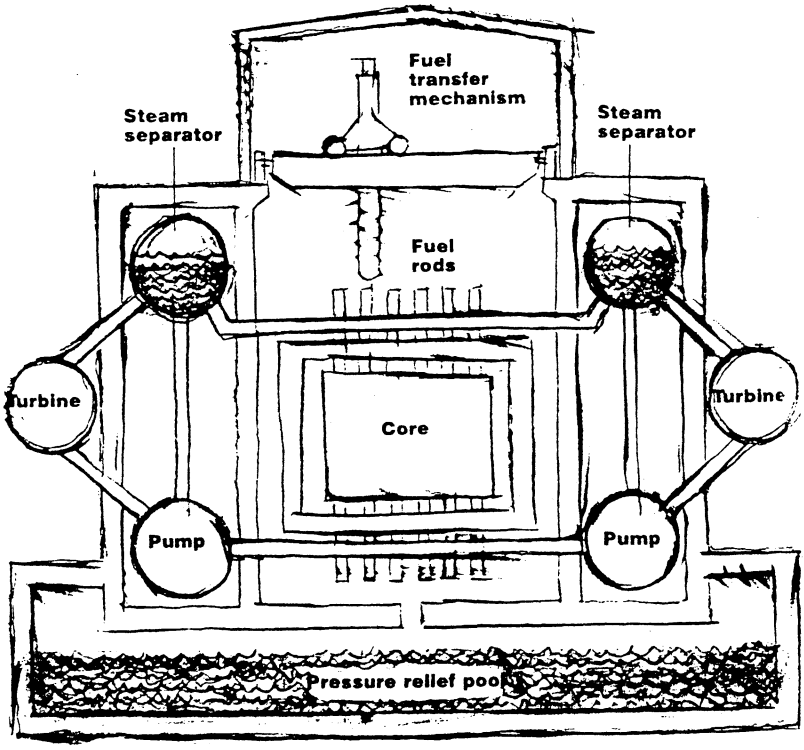


Below left: The design of RBMK fuel rods may be seriously flawed. Abrupt temperature changes could break the sensitive weld that joins an inner zirconium-alloy section to outer steel sections.

Below right: RMBK reactors recirculate water continuously. Pumps on both sides of the central building send water up the fuel rods so the heat turns some of it to steam. Separators then send the water back to the pumps and divert the steam to turbines that generate electricity. In the turbines, the steam recondenses into water, which returns to the pumps.



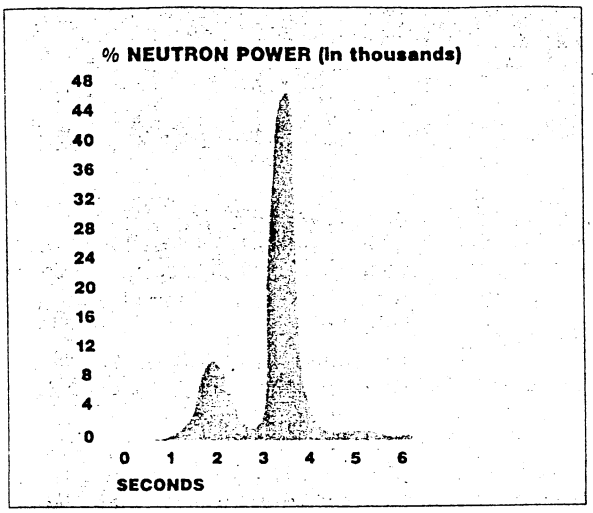
Fuel channel



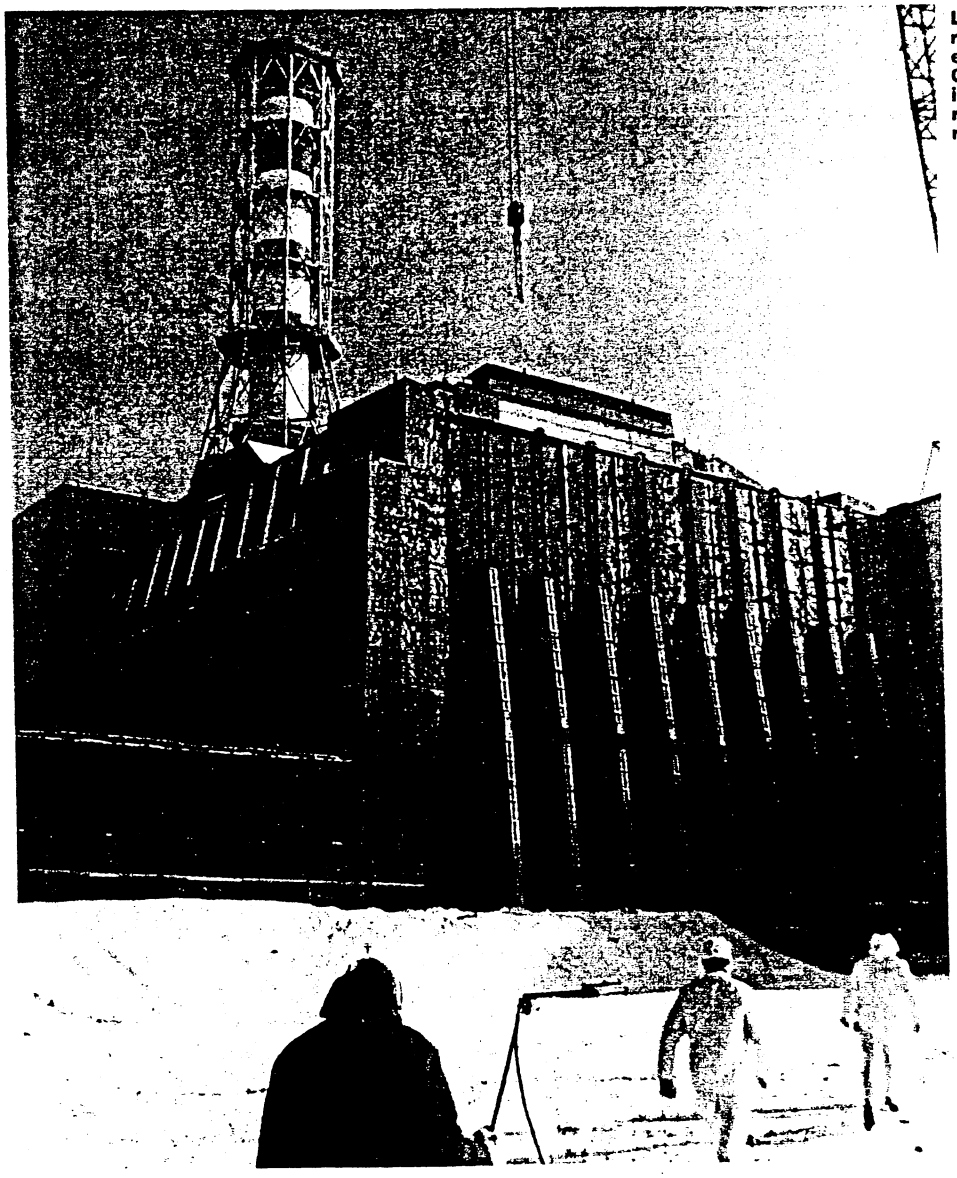
Chernobyl-Type Reactor

S 000856

PHOTOGRAPH: SOVFOTO; ILLUSTRATIONS: DAVID SCHUSTER



Left: Soviet calculations of Chernobyl Unit 4's behavior during the accident suggest that two explosions rocked the plant.

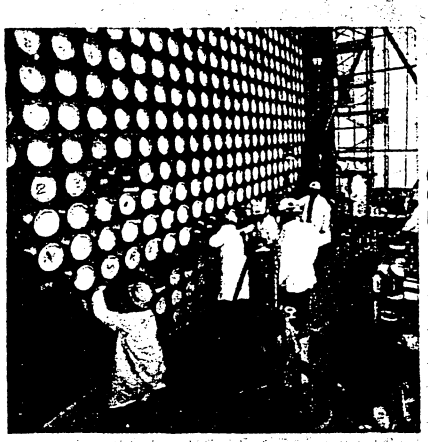


Left: While other RBMK reactors continue to operate in the Soviet Union, Chernobyl Unit 4, contaminated with radiation, will remain buried for centuries in a sarcophagus.

S 000857

PHOTOGRAPH: SOVFOTO

Canada's Post-Chernobyl Challenge



Canada's CANDU plants are North America's closest operating relatives to the reactor that exploded at Chernobyl.

Of the nuclear power plants operating outside the Soviet Union, only Canada's CANDU reactors have a substantial positive-void coefficient—the design feature that rendered the Chernobyl reactor vulnerable to disaster.

Like the RBMK, the CANDU is fueled while operating, but the Canadian reactor is fueled horizontally so the rods don't penetrate the top, and the fueling mechanism is encased, like U.S. reactors, in a formidable containment structure. Moreover, the turbines are linked indirectly rather than directly to the reactor's cooling system, reducing the risk that pump problems could lead to an abrupt loss of water and bring the positive-void effect into play.

Official Canadian reports describe the CANDU's positive-void coefficient as about one-third that of the RBMK's. Specifically, the reports say that loss of coolant in a CANDU could increase reactivity by 7 to 11 mk (a measure of reactivity), compared to 30 mk in the RBMK. This distinction may be academic, since reactors become uncontrollable at about 5 mk.

More important, Ontario Hydro vice-president William Morrison says reactivity increases much more slowly in a CANDU and its control rods are much faster. Canadian licensing requires reactor designers to assume a worst-case accident in which both coolant is lost and the primary shutdown system fails. Accordingly, all but four aging CANDUs have a second shutdown system that rapidly injects a fission poison into the reactor.

The Canadians point out that every reactor, whether or not it has a positive-void coefficient, is vulnerable to sudden changes in reactivity. For example, Morrison says that suddenly ejecting the control rods from a pressurized-water reactor (one type of water-moderated reactor) will speed up the reaction well beyond the point at which it would be uncontrollable. Zig Domaretski, safety chief at the Atomic Energy Board of Canada, says that every time a turbine disengages in another type of water-moderated reactor, reactivity rises about 10 to 12 mk. Dealing with this is straightforward, he says, requiring a shutdown system that reacts in the first half-second and provides 30 mk of damping within a few seconds.

"Every reactor has the potential for large reactivity increases, but only the RBMK did not recognize this adequately," according to Morrison. Domaretski says the RBMK's shutdown system is satisfactory only when the reactor is at full power, but accident analyses seem to have assumed full power—an "almost incredible attitude."

William Sweet ■

that explanation soon fell into discredit, and speculation then centered on a hydrogen explosion, the type of event that had threatened to blow up Three Mile Island. For most of the last three years, the standard account has attributed the accident to a steam explosion.

In fact, runaway nuclear reactions were the driving force behind the accident. Experts have shied away from using the term nuclear explosion, but as Richard Wilson of Harvard University has said, "It was a nuclear explosion, there's no doubt, because the ultimate source of energy was nuclear. . . . To ever say it was not a nuclear explosion is just plain wrong."

First, a runaway reaction caused the fuel to melt and expand. Whether or not interactions with steam or water took place, the pressures would have sufficed to lift the lid. Once that happened and all the tubing ruptured, many conceivable catastrophes might have occurred, and for all we know, they all may have. Probably a second nuclear explosion occurred, much more violent than the first runaway reaction, and this nuclear explosion completed the destruction of the plant's physical structure.

Not every expert, to be sure, believes that the second explosion was nuclear. Brookhaven's Kouts, one of the most respected U.S. reactor specialists, thinks the second event was a particularly violent steam explosion caused by the sudden ejection of tiny fuel particles into the water-steam tubing. Other experts passionately reject this notion of a "superheat" steam explosion.

If the second explosion was indeed nuclear, would it be fair to say that the reactor blew up like an atomic bomb? In one sense, it would be deeply misleading to say that it did. While a bomb is designed to make a critical mass explode in microseconds with an energy measured in millions or billions of gigajoules, the Chernobyl reactor exploded thousands of times more slowly with an estimated energy of perhaps 1,000 gigajoules.

But if the second explosion *was* nuclear, it also would be deeply misleading to say that the plant did not blow up like an atomic bomb. In an explosion of that kind, the reactor would go through the same physical steps the core of a bomb traverses. It would turn into a critical mass and begin to react uncontrollably. The fuel would melt and finally vaporize.

Did the fuel definitely vaporize? The official reports sometimes waffle on this question regarding

S 000858

PHOTOGRAPH: ONTARIO HYDRO

Punctuating concerns over Chernobyl is the suicide of the scientist delegated to preside over the official Soviet review.

the first explosion, but they usually say that parts of the fuel must have become hot enough. If there was indeed a second nuclear explosion that was roughly 10 times more powerful than the first, there is no doubt at all: fuel would have vaporized.

The Soviet Technical Fixes

When the Chernobyl accident occurred, 13 other RBMK reactors were operating in the Soviet Union, "many with fewer safety features than Chernobyl Unit 4 had," an NRC report observed. A number of other RBMKs were under construction, but their status is now uncertain because of spreading anti-nuclear activism, new concern about seismic dangers in the aftermath of the Armenian earthquake, and—not least—concerns arising from the Chernobyl accident itself. This April, the Soviets abandoned plans to build two new reactors at Chernobyl and announced that they would not expand similar facilities elsewhere.

The Soviets have introduced a number of design modifications to render the RBMKs less vulnerable to the type of accident thought to have destroyed Unit 4. They have slightly increased the enrichment of the fuel, installed stops limiting the extent fuel rods can be removed, and made the control-rod system faster. It is generally believed that operating RBMKs are being retrofitted to these specifications. Experts also suspect that the Soviets may be taking other measures to improve the RBMKs under construction, such as installing more pressure tubes and control rods to reduce the density of the graphite lattice.

The general intent of these measures is to reduce the scope and magnitude of the positive-void effect and enhance the control system's ability to cope with conditions that could lead to a runaway reaction. The consensus among Western experts is that the steps will reduce but not entirely eliminate the positive-void factor, and that they improve control of the rods.

But experts stress that there are strict inherent limits on the extent to which the RBMK can be made safer. And they express considerable concern that the corrective measures do not address all the severe accident possibilities that Chernobyl brought to light. Finally, some experts believe that the corrective measures may even aggravate some risks.

For example, the OECD report points out that richer fuel increases the instability that exists when the fuel is first loaded into the reactor. The speedier control rods could cause still other serious problems. Each RBMK pressure tube has a sensitive weld toward the top and bottom, which joins an inner zirconium-alloy section to outer steel sections (*see the diagram on page 48*). The Soviets were well aware that these welds were vulnerable to sudden temperature changes, according to Kouts. He believes one reason the RBMK had a slow control system was to avoid subjecting the welds to excessive thermal shock.

If control rods were inserted suddenly, causing the temperature of the reactor to change abruptly, there is a serious danger that several of the tubes would rupture. A dozen or so breaks would easily suffice to lift the lid of the reactor, break the tubes and control mechanisms, and precipitate the chain of events that occurred the night of April 26.

In fact, Wilson and some other experts believe that a multiple tube rupture might have actually caused the Chernobyl accident. In this scenario, the accident may have resulted when the operators subjected the reactor to thermal shocks as they sought to stabilize it at a low power level. Whether or not this actually happened, it could have happened. Wilson says that he and others have tried to get the Soviets to focus on this scenario, but the Westerners have had little apparent success.

Because so many factors and combinations of factors could have caused or contributed to the catastrophe, Edward Purvis, who led DOE's study team, has criticized those who endorse a specific explanation. "If you're trying to make the RBMKs safe, you can't arbitrarily pick one thing and fix it," Purvis says. "You have to take care of all possible causes."

The NRC's view of the RBMK is not drastically different. Asked how he would rate the vulnerability of the modified RBMK to catastrophic accident, Harold Denton, the former NRC safety chief, said, "We wouldn't license such a reactor here, and we've told them so."

Soviet authorities have tried to blame the Chernobyl accident primarily on the plant's operators, and the top people responsible for running the plant have been tried and convicted of negligence. But years before the accident, British reactor experts are reported to have told their Soviet counterparts that the flawed RBMK design put excessive demands on the plant operators. It is an open question whether

The top of the reactor is relatively defenseless in all the Soviet units built or under construction.

the modified design represents a significant and adequate improvement.

Meltdowns and Explosions

Chernobyl has implications primarily for the RBMK reactor and secondarily for Soviet management of nuclear energy. U.S. reactors, in which water as opposed to graphite moderates the reaction, are not seriously vulnerable to a Chernobyl-style mishap. A fizzling steam explosion could occur in a U.S. reactor if a molten core dropped into a pool of water, but the possibility is remote, and the result would not be the enormously violent nuclear explosion that destroyed Unit 4.

While the Soviet government has made an unprecedented disclosure of sensitive information, and has displayed an extraordinary willingness to take advice from outsiders, reactor experts in the United States and Canada remain worried about the possible recurrence of a catastrophe in an RBMK reactor. These scientists are unhappy about the reluctance of the Soviets to perform the very detailed accident analyses that came into fashion here after Three Mile Island. And despite the openness to Western criticisms, government censors still routinely excise Chernobyl-related articles from Western publications circulating in the Soviet Union.

Punctuating the continuing concern over RBMK reactors is the suicide of Valery Legasov, the atomic scientist the Soviets had delegated to preside over the official Chernobyl review. He killed himself on April 27, 1988, the second anniversary of the accident, and official explanations of the death are vague. Reliable private reports indicate he had a terminal disease and planned his death in collaboration with a physician, but it is possible that Legasov, by choosing the day he did, also wished to make a public statement with his death.

Certainly it gives weight to his posthumous warnings about the threats that Chernobyl still poses. A month after the suicide, *Pravda* published parts of memoirs that Legasov had dictated into a recorder during the two years after the accident. *Pravda* headlined the excerpts, "It is my duty to speak out."

According to the extracts, Legasov had been aware of deteriorating trends in the design and management of nuclear power plants before the accident, but he had felt powerless to intervene because "professionals in the field did not take kindly to outside interference." The scientist complained that officials had dismissed his calls for rigorous reactor fault analysis and studies of safer reactor types.

While he felt nuclear power plants probably were safer than conventional power plants, Legasov worried about the amount of graphite, zirconium, and water in the RBMK. And he was concerned about the lack of safety systems that would activate independently of operators.

Legasov came to believe that an important underlying cause of the disaster was the absence of individual responsibility for equipment quality. He called the events at Chernobyl the "apotheosis and peak of the economic mismanagement in our country over decades."

Just before his death Legasov told *Pravda*, "The lessons of Chernobyl have still not been analyzed to the end." ■

Official studies in English:

Atomic Energy Board of Canada, "The Accident at Chernobyl and Its Implications for the Safety of CANDU Reactors," May 1987.

Atomic Energy of Canada Limited and Nuclear Safety Analysis Center (Electric Power Research Institute), "Multidimensional Analysis of the Chernobyl Accident," August 1988.

International Nuclear Safety Advisory Group, International Atomic Energy Agency, "Summary Report on the Post-Accident Review Meeting on the Chernobyl Accident," 1986.

Nuclear Energy Agency, Organisation for Economic Cooperation and Development, "Chernobyl and the Safety of Nuclear Reactors in OECD Countries," Paris 1987.

U.S. Department of Energy, "Report of the U.S. Department of Energy's Team Analyses of the Chernobyl-4 Atomic Energy Station Accident Sequence," November 1986.

U.S. Nuclear Regulatory Commission, "Implications of the Accident at Chernobyl for Safety Regulation of Commercial Nuclear Power Plants in the United States," May 1987.

U.S. Nuclear Regulatory Commission, "Report on the Accident at the Chernobyl Nuclear Power Station," December 1987.

Other major reports:

John Ahearne, "Nuclear Power After Chernobyl," *Science*, May 8, 1987.

Harold Denton, "The Causes and Consequences of the Chernobyl Nuclear Accident and Implications for the Regulation of U.S. Nuclear Power Plants," *Annals of Nuclear Energy*, 1987.

Christopher Flavin, "Reassessing Nuclear Power: The Fallout from Chernobyl," Worldwatch Institute, March 1987.

Edward Purvis and Bruce Spencer, "Chernobyl-4 Accident Analysis," European Nuclear Society and American Nuclear Society, Topical Meeting on Probabilistic Risk Assessment, August/September 1987.

Richard Wilson, "A Visit to Chernobyl," *Science*, June 26, 1987.

Edwin Zebroski, "The Nuclear Accident at Chernobyl," *Yearbook of Science and Technology*, McGraw-Hill, 1988.

Edwin Zebroski, "Sources of Common-Cause Failures in Decision Making in Man-Made Disasters," *Advances in Risk Analysis* (vol. 7), Plenum, 1989.

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The Associated Press

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June 9, 1989, Friday, AM cycle

SECTION: Business News

LENGTH: 512 words

HEADLINE: Some Scientists in Review Article Call 1986 Explosion a Nuclear Blast

DATELINE: CAMBRIDGE, Mass.

BODY:
The nuclear industry said it couldn't happen, but some scientists now believe the 1986 accident at the Soviet Union's Chernobyl power plant exploded like an atomic bomb.

An article in Friday's Technology Review, a journal published by the Massachusetts Institute of Technology, says similar accidents could happen at 13 other nuclear reactors in the Soviet Union.

However, "the possibility of such an accident in a U.S. reactor is vanishingly small," wrote **William Sweet,** a reporter for **Physics Today,** published by the American Institute of Physics.

Sweet gathered his information in interviews with scientists and specialists at the Nuclear Regulatory Commission and the U.S. Department of Energy.

"A runaway nuclear reaction set off a chain of events that severely damaged the reactor core and surrounding structures," Sweet wrote.

"This damage set the stage for a second explosion which was much more violent than the first and almost certainly was a full-fledged nuclear explosion."

Some scientists say the article accurately reports current thinking, but others say it is causing unnecessary alarm.

S 000893

"To call this a nuclear explosion is very misleading," said Themis Speis, deputy research chief at the NRC.

"The reactor went out of control, but the time it took to raise the temperature and pressure is many orders of magnitude smaller than it takes to get an atomic bomb going," he said.

John Ahearne, former NRC chairman, said, "I wouldn't call it a nuclear explosion."

Harvard University physics Professor Richard Wilson said in the article, "It was a nuclear explosion; there's no doubt, because the ultimate source of energy was nuclear.

"To ever say it was not a nuclear explosion is just plain wrong."

The argument is one of semantics, said Gregory Van Tuyle, a nuclear engineer at the Brookhaven National Laboratory.

The plant was not destroyed by a steam explosion as scientists had believed, but "power grew to very large levels very rapidly," he said. "The phrase 'nuclear explosion' is not inappropriate."

The accident, blamed for the deaths of at least 31 people, injured many more and spread radiation for thousands of miles.

Sweet acknowledged that the reactor at Chernobyl "exploded" far more slowly and with much less energy than a bomb. But, he said, official reports suggest the reactor's fuel formed a critical mass, reacted uncontrollably, melted and vaporized.

It "would be deeply misleading to say that the plant did not blow up like an atomic bomb," he said.

"Ever since the first nuclear power plants were built in the 1950s, the industry has insisted they can't explode like bombs," Sweet said. "Chernobyl casts doubt on whether that is true of all power reactors.

"Of the plants operating in North America, however, only the Canadian plants are susceptible to a Chernobyl-type accident."

In an interview Friday from his New York office, Sweet explained that a Chernobyl-type accident is unlikely in the United States because U.S. commercial reactors use a different type of moderator and have a safer design. WILLIAM SWEET (94%);

/

PHYSICS TODAY 12/22
from Gloria B. Lubkin

VS,
Nice work!
Gloria

50th ANNIVERSARY 1931-1981

Lawrence Berkeley Laboratory
University of California • Berkeley, California 94720

February 2, 1982

Dr. Harold L. Davis, Editor
Physics Today
335 East 45th Street
New York, NY 10017

Dear Dr. Davis:

I'm sorry to say I didn't write down a single word before I gave my talk. I spent a lot of time getting just the right slides in the right order, and used them to cue me in what I planned to say.

Sincerely,

Luis W. Alvarez

LWA/bk

P.S. I liked the way Jeffrey Schmidt helped me get my story on accelerator dating in shape for the January issue of Physics Today.

L.W.A.

Telephone: (415) 486-4000 FTS 451-4000

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University of Illinois at Urbana-Champaign

College of Engineering
MATERIALS RESEARCH LABORATORY
104 S. Goodwin Ave.
Urbana, Illinois 61801
(217) 333-1370

May 14, 1982

Dr. Tom von Foerster
PHYSICS TODAY
335 East 45th Street
New York, New York 10017

Dear Tom:

After sampling my approximate need, I would like to order 500 reprints of my PHYSICS TODAY article entitled, "Thermodynamics of Excitons in Semiconductors." This would include black-and-white article with four-color cover. Since the article is 8-1/3 pages, I estimate from your guideline sheet that the charge would be $110 + 4 x $17 = $178 plus cover at $230 + 2 x $26 = $282 for about $460 total cost, plus some cost for 200 covers you now have. If this estimate is far off, let me know; otherwise, please initiate the order.

I am very pleased with the final product. The cover photo reproduced very well and the article and figures came out nicely. I was pleased with the interest and knowledgeability of Jeff Schmidt, whose thorough reading of the manuscript and interest in the material helped to make the article more readable. Thanks.

Sincerely,

Jim Wolfe
Professor of Physics

JW:dj

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Yale University
A. W. Wright Nuclear Structure Laboratory
272 Whitney Avenue, P.O. Box 6666, New Haven, Connecticut 06511

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D. Allan Bromley
Henry Ford II Professor
and Director
203-436-3026

February 7, 1984

Harold L. Davis
Physics Today
335 East 45th Street
New York, New York 10017

Dear Hal:

You sent me a copy of a letter from Larry Cranberg dated January 23rd which you were proposing to publish. I am enclosing herewith an answer that you may wish to publish along with the Cranberg letter.

Your people did an excellent job in condensing the paper and I have received many very positive comments concerning it.

With all best wishes.

Sincerely yours,

Allan

DAB:mts

Enc.



UNIVERSITY OF OREGON

May 14, 1984

Jeff Schmidt
Associate Editor
Physics Today
335 East 45 Street
New York, NY 10017

Dear Jeff:

With reference to your letter of May 9 and my telephone reply, I want to put in writing how very grateful I am for the superb editing job that you did on our article on atomic physics with synchrotron radiation. I wish I could write like that!

Will it be possible to order a few reprints, or extra copies of the June issue?

With best regards,

Sincerely,

Bernd

Bernd Crasemann
Professor of Physics

BC:sh

S 000076

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To Harold Davis

From Mildred Dresselhaus

- ☐ for your recommendation
- ☐ to note and return
- ☑ for appropriate action
- ☐ at your request
- ☐ for your information
- ☐ for your file

S 000077



Orig EAS WWH To LRB ER PT

Posted: Sun Aug 19, 1984 4:33 PM EDT Msg: QGIE-1878-7730
From: MDRESSELHAUS
To: WHavens
CC: MDresselhaus
Subj: Message to Physics Today

1. I reviewed the article by
Beasley and Geballe and am
sending my copy to you by
Federal Express. The article
is in good shape basically.
2. I found the article by
Fritzsche in my pile eventually.
I have also reviewed that article.
I am pleased with the improvements
that have been made and feel that
it will be an effective article
in Physics Today.
3 . Please be in touch with me on the
remaining items in the issue.
I will be back at MIT on Tuesday
8/21.
Cheers
Millie.

Action?

Command? r2

The University of Wisconsin – Milwaukee

LABORATORY FOR SURFACE STUDIES
DIRECTOR: David S. Y. Tong

MILWAUKEE, WISCONSIN 53201
PHONE: (414) 963-5765, 4474

October 29, 1984

Dr. Harold L. Davis, Editor
Physics Today
335 East 45th Street
New York, NY 10017

Dear Harold:

Just a note to let you know that since the publication of my article, "Exploring Surface Structure" in Physics Today, I have received many responses. Most of the responses are from people that I have never met. This indicates how popular your journal is. One response characterized Physics Today as a "widely read and influential" journal.

I would like to take this opportunity to thank you for asking me to write the article. Also, I would like to thank Jeffrey Schmidt for his excellent editing work.

On the other hand, some comments from colleagues complain that their names or work were left out of the article. Incidentally, most of the complaints came from West Germany (I do not know the significance of this). I remember the difficult hours Jeffrey and I spent on cutting out names and paragraphs from the original draft. However, it is difficult to convince a colleague that a non-expert cannot care less for a name. They point out that department chairmen and industrial managers read these articles to judge the performance of their staff.

Surface structure is an active and dynamic area. Of the 26 surface techniques that I discussed in the article, I feel many of them deserve full length articles in your journal. I would support such future articles to be written by various authors.

Finally, I have ordered reprints and complimentary copies but have not yet received them. Could someone check on this for me please?

With best regards,

Yours sincerely,

S. Y. Tong

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SYT:da

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721
602/621-6970
LUNAR AND PLANETARY LABORATORY

February 22, 1985

Mr. Jeff Schmidt, Assoc. Editor
PHYSICS TODAY
335 E. 45th St.
New York, NY 10017

Dear Jeff:

With this letter I thank you for your help with the article on asteroids and comets in the February issue. I have had much editing experience myself, for the Space Science Series books of the University of Arizona Press, and it is through this training that I can appreciate the exceptional job you have done.

There was a considerable amount of rewriting that you guided me into patiently and the article is much better than my original version. Your thinking through the material and your questions step by step have actually clarified the material for me; where I had made a statement carelessly you would bring me up and bring about a clearer version.

I also admire your patience. Until the very end, with the material already set, I kept asking you for additions and changes because the field is changing so fast. You allowed all of these and I am most grateful.

If you ever want to move out West, we would love to have you at the Press and we could surely use your competence.

With best regards,

Tom

Tom Gehrels

TG/sm
cc: Dr. H. L. Davis

P.S. Would you have a few reprints of the article or a few February issues for me? As we discussed on the phone, I would now like to send this to the Soviet Union where there is an interest in publishing a translated version of the article.

S 000015

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W.W. HANSEN LABORATORIES OF PHYSICS
STANFORD UNIVERSITY
STANFORD, CALIFORNIA 94305-2184

Edward L. Ginzton Laboratory
High Energy Physics Laboratory

Telephone (415) 497- **0213**

September 23, 1985

Mr. Jeff Schmidt
Associate Editor
Physics Today
335 East 45 Street
New York, N.Y. 10017

Dear Mr. Schmidt:

The August issue of Physics Today has arrived and in this note I want to tell you that I am pleased with the outcome.

I thank you for the good work that you did on our behalf.

With regards,

C. F. Quate

S 000081

CFQ:am

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Jeff

5 March 1986

Dear Gloria,

I was very pleased that my article was accepted for Physics Today without any major revisions. I enjoyed interacting with Jeff Schmidt, and felt that he significantly improved the quality of the manuscript. I look forward to seeing the March issue.

With best wishes,

Yours sincerely,

John Clarke

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4 April 1986

Dear Jeff,

I was delighted to see that you were able to have "eye" moved in Fig. 5 of my article — I really appreciate your taking care of this.

I thought the special issue came out rather nicely. Thanks again for your help with my article.

Yours sincerely,

John Clarke

S 000073

JS

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DEPARTMENT OF PHYSICS, B-019
LA JOLLA, CALIFORNIA 92093

April 14, 1986

Ms. Gloria B. Lubkin, Editor
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New York, N. Y. 10017

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APR 21 1986
PHYSICS TODAY

Dear Gloria,

It is unfortunate that our paths didn't cross during the March APS meeting in Las Vegas, Hopefully, I will have another opportunity to see you some time in the near future.

I am writing to thank you for inviting me to contribute the article "Novel Types of Superconductivity in f-Electron Systems" for Physics Today. I am very pleased with the way the article turned out, and I enjoyed working with you and Jeff Schmidt on it. I had the opportunity to meet Jeff in Las Vegas, to tell him how much I liked the article, and to thank him for his considerable effort he put into its preparation.

With best regards,

Sincerely,

Brian

M. Brian Maple

MBM:njm

KUNGL. TEKNISKA HÖGSKOLAN
THE ROYAL INSTITUTE OF TECHNOLOGY

Department of Plasma Physics

Stockholm, September 29, 1986

Dr Gloria Lubkin
Physics Today
335 East 45 Street
New York, N.Y. 10017 USA

Dear Dr Lubkin,

I wish to thank you for the very nice presentation which Physics Today has given my paper "Plasma Universe". I believe that your publication will mean a breakthrough for the general understanding of plasma phenomena in astrophpysics and the acceptance of ideas for which I have fought for more than 40 years.

Please convey my appreciation to Dr.Jeffrey D. Schmidt, with whom I have had a number of fruitful telephone conversations.

Yours sincerly,
Hannes Alfven
Hannes Alfvén

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OCT 0 1986
PHYSICS TODAY

S 000082

Please note Professor Alfvén's addresses:
To October 3, 1986
Department of Plasma Physics
The Royal Institute of Technology
S-100 44 Stockholm, Sweden

From October 5, 1986 to March 25, 1987
EE & CS Code-014
University of California, San Diego
La Jolla CA 92093 USA

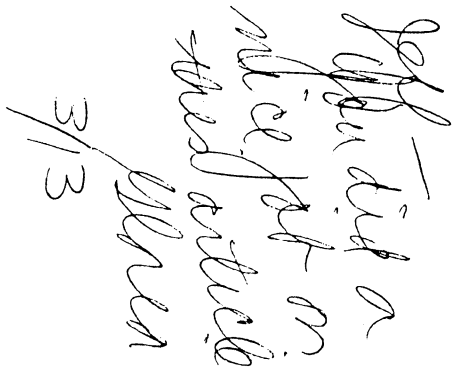
FILE: NAGLE 377 QUEUE:TYP-OUT
IS: PT- FMT:
BY: J ;25/02,12:10 REV: ELLS ;12/03,08:41
12-MAR-87 09:24:14

11 March 1987, 3:30 pm.

This article has three tables.

Dr. Darragh Nagle and Dr. Mikkel Johnson
Los Alamos National Laboratory
Mail stop H864
Los Alamos, New Mexico 87545
505-667-2971 (Nagle)
505-667-6942 (Johnson)

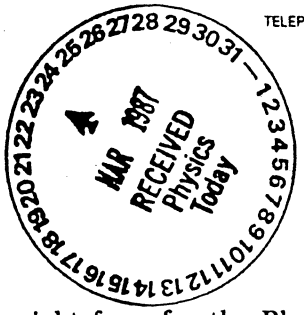
Dr. David Measday
Physics Department
University of British Columbia
6224 Agriculture Road
Vancouver, BC
Canada V6T 2A6
604-228-5098 (Measday)
604-228-3853 (physics department)



S 000087

Los Alamos
Los Alamos National Laboratory
Los Alamos,New Mexico 87545

DATE: March 20, 1987
IN REPLY REFER TO: MP-DO
MAIL STOP: H830
TELEPHONE: (505) 667-2971



Ms. Gloria B. Lubkin/Editor
Physics Today
335 East 45 Street
New York, NY 10017

Dear Gloria:

We are returning the copyright form for the Physics Today article. David Measday would be pleased to sign if that is required.

May I say Jeff Smiths' efforts produced what the authors consider to be a much more readable article, for which we are most appreciative.

Sincerely,

Darragh Nagle
Senior Fellow

DN:rs

enc.: a/s

cy: CRM-4(2), MS A150
File

S 000085

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DEPARTMENT OF PHYSICS

TELEPHONE: 718-520-5000

March 31, 1987

Dr. Jeffrey Schmidt
PHYSICS TODAY
335 E. 45th Street
New York, NY 10017

Dear Jeff:

I want to thank you for your extraordinary efforts in ferreting out eye-grabbing photos of vehicle accidents. In fact, they captured my attention to the extent that I read the article yet again.

I think every aspect, the photos, layout, color, length, etc., have made a balanced and easily readable article. You have done a fine job of editing and I and my colleagues appreciate it.

Sincerely,

Art

Arthur C. Damask
Professor

ACD:sa

S 000089

UNIVERSITY OF OREGON

Russell J. Donnelly
Professor of Physics
(503) 686-4226

MAY 1987
RECEIVED
Physics
Today

May 5, 1987

Dr. Gloria Lubkin, Editor
Physics Today
140 East 45th Street
37th Floor
New York, NY 10017

Dear Gloria:

Now that my parts of the February and April Physics Today are published I want to thank you very much for making it all possible.

First of all, I thank you on behalf of the low temperature community for the nice series of articles on ^3He and ^4He. It was nice to think of being part of the good old low temperature community. Who the heck would have thought that by April superconductivity would be headed for temperatures created by ice and salt? I wonder what our friends will call themselves now?

I was also pleased by all the telephone calls on the Dana article. Not the least surprise was to find that Leo Dana is the person who got Dave Lazarus interested in science.

I would especially like to thank Jeff Schmidt, who worked closely and thoughtfully with me to make it all become real.

Yours sincerely,

Russell

Russell J. Donnelly

RJD:mcr
0401C

S 000084

AMERICAN INSTITUTE OF PHYSICS

335 EAST 45 STREET NEW YORK, NEW YORK 10017 • Telephone (212) 661-9404
Telex 960983 AMINSTPHYS-NYK

KENNETH W. FORD
Executive Director and CEO

28 October 1987

To: Gloria Lubkin

From: Kenneth W. Ford KF

Subject: Canavan - Bloembergen-Patel debate

Congratulations to you and your staff on a superb job of presenting the Canavan vs. Bloembergen and Patel material. It is very effective and much more readable than standard "debate" formats. The PT lead-ins help too. I am very impressed by the job you have done.

KWF:lab

cc: John Rigden

OCT 1987
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Physics
Today

S 000090

JS

UNIVERSITY OF TOKYO
7-3-1 HONGO, BUNKYO-KU, TOKYO 113, JAPAN

FACULTY OF SCIENCE
DEPARTMENT OF PHYSICS

TELEPHONE: 03-812-2111
CABLE: TOKUNIV RIGAKU
TELEX: UTPHYSIC J23472

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NOV 1987
Physics Today

13 November 1987

Dr. Gloria B. Lubkin
Editor, Physics Today
American Institute of Physics
335 East 45th Street
New York, NY 10017
U.S.A.

Dear Dr. Lubkin,

Thank you very much for your letter of November 6.

It was a great pleasure to meet you and to talk with you in Washington.

I received the edited version of my manuscript. I was very happy to see the beautifully edited version of my article.

I am now herewith sending you back a copyright form which you requested to fill out.

Many thanks again for inviting me to write an article in Physics Today. I hope to see you again in the near future.

Yours sincerely,

Hiroshi Kamimura

S 000086

MOORHEAD
STATE UNIVERSITY

A Century of Excellence / 1887-1987

March 10, 1988

Ms. Gloria B. Lubkin, Editor
Physics Today
335 East 45th Street
New York, New York 10017

Dear Ms. Lubkin:

I acknowledge with thanks the receipt of your letter of March 7, 1988, informing me about the acceptance of my manuscript for publication in Physics Today (April issue). I am herewith enclosing the copyright form duly signed.

I take this opportunity to thank you and your associates, especially Jeff Schmidt, for bringing this project to a successful ending. It has been a very rewarding experience for me and I have very much enjoyed working with Jeff Schmidt.

Sincerely,

Vijendra K. Agarwal
Associate Professor
Department of Physics and Astronomy

VJK/lt
enclosure

D00143

AMERICAN INSTITUTE OF PHYSICS
335 EAST 45th STREET, NEW YORK, NY 10017 · (212) 661-9404

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"Langmuir-Blodgett films"

submitted by the following author(s) (names of all authors) Vijendra K. Agarwal

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Signature — Date: 3/9/88

VIJENDRA K. AGARWAL

Name (print)

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D00144

3/87

AMINSTPHYS NYK
✠
AMINSTPHYS NYK

DR JEFRF SCHMIDT
ASSOCIATE EDITOR, PHYSICS TODAY
AMERICAN INSTITUTE OF PHYSICS
335 EAST 45TH STREET
NEW YORK, NY 10017
USA

DEAR DR SCHMIDT,
RECEIVING PHYSICS TODAY DECEMBER SPECIAL ISSUE 'PHYSICS IN JAPAN', I WAS VERY PLEASED AND HAPPY TO SEE THAT MY ARTICLE WAS PUBLISHED SATISFACTORILY. THIS IS ENTIRELY DUE TO YOUR GREAT HELP. I WOULD LIKE TO THANK YOU FOR YOUR KIND COOPERATION.
IS IT POSSIBLE TO OBTAIN REPRINTS OF MY ARTICLE? SINCE THERE ARE A NUMBER OF REQUEST FOR REPRINT FROM ALL OVER THE WORLD, I WOULD LIKE TO HAVE 100 OR 200 REPRINTS, DEPENDING ON ITS COSTS. WOULD YOU KINDLY LET ME KNOW IT BY TELEX (UTPHYSIC J-23472) OR BY FAX (3-814-9717). BEST REGARDS,
HIROSHI KAMIMURA

✠
AMINSTPHYS NYK

TO REPLY FROM TELEX I OR II (TWX) DIAL 100. FROM EASYLINK USE /WUW.
EST 0206 APR/06/1988

Giorgio
Margaritondo

Bitnet:
Giorgio@Wiscpsl

Synchrotron Radiation Center
University of Wisconsin-Madison
3731 Schneider Drive
Stoughton, WI 53589-3097 – Phone (608) 873-6651

1988 April 21

Dr. Gloria Lubkin
Editor, Physics Today
335 East 45th Street
New York, NY 10017

RE: **My article in Physics Today (April 1988)**

Dear Gloria:

Now that my article has been published, I would like to thank you for giving me this opportunity to celebrate the 100th anniversary of Hertz's discovery. As usual, your staff has done an outstanding job in transforming my English-Italian into an impeccable text that Hemingway would not have minded to sign — and my poor pictures into super-sharp figures.

Would you please extend my thanks to the staff that was involved in the production of the article.

With my best regards.

Sincerely,

Giorgio Margaritondo
Associate Director for Research

GM:tlm

21 SEPT. 89

RCA SEP 21 02304
AMINSTPHYS NYK

411059 CERII SU

GLORIA B LUBKIN
EDITOR
PHYICS TODAY
335 EAST 45TH STREET
NEW YORK N Y 10017
U S A

DEAR GLORIA,
THANK YOU FOR PROVIDING FREE OFFPRINTS. I HAVE ALREADY RECEIVED ABOUT TWENTY RESPONCES ON ENERGY AND MASS. MOST OF THEM ARE FAVORABLE, ONE CRITICAL AND SEVERAL CRAZY. HOW MANY LETTERS HAVE YOU RECEIVED IN CONNECTION WITH MY ARTICLE?

THE OFFPRINT LOOKS QUITE IMPRESSIVE, AND I'M GRATEFUL TO JOFFREY SCHMIDT FOR THIS. I HAVE ALSO RECEIVED A LETTER FROM PETER G.BROWN SAYING ''WE ARE PLEASED TO ENCLOSE A COMPLIMENTARY COPY OF OUR JUNE ISSUE''. BUT THE COPY ITSELF DID NOT ARRIVE.

I HAVE THE MOST WARM RECOLLECTIONS FROM MY VISIT TO YOUR OFFICE.

WITH CORDIAL WISHES,
LEV OKUN

AMINSTPHYS NYK

411059 CERII SU

S 000066

Helsinki University of Technology
Low Temperature Laboratory
Dr. Olli V. Lounasmaa, Director,
Research Professor of the Academy
of Finland

Helsinki, Oct. 12, 1989

Ms. Gloria Lubkin
Physics Today

Dear Gloria:

I was very pleased with the typographical appearance of my article in the October issue of Physics Today. Please convey my appreciation to Jeff Schmidt as well.

Best wishes,
Sincerely yours,

Olli V. Lounasmaa

S 000065

OCT 1989
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To Jeff Schmidt
With appreciation for considerable editorial help.
Jerome Karle

MACROMOLECULAR STRUCTURE FROM ANOMALOUS DISPERSION

28AUG.89
GLORIA,
JEROME KARLE SENT AN OFFPRINT OF HIS PHYSICS TODAY ARTICLE WITH A NOTE OF APPRECIATION.
—JEFF

Jerome Karle

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D00142

To Jeff Schmidt
With appreciation for considerable editorial help.
Jerome Karle

MACROMOLECULAR STRUCTURE FROM ANOMALOUS DISPERSION

Jerome Karle

S 000070

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

DEPARTMENT OF PHYSICS

77 MASSACHUSETTS AVENUE
CAMBRIDGE, MASSACHUSETTS 02139

Robert J. Birgeneau
Head of the Department of Physics
Cecil and Ida Green Professor
Of Physics

Room 6-113
(617) 253-4801
Telefax
(617) 253-8554

July 19, 1989

Dr. Gloria B. Lubkin
Editor, Physics Today
335 East 45 St.
New York, NY 10017

Dear Gloria,

As you realize, our Liquid Crystal article finally appeared in Physics Today and it looks beautiful! I feel obligated to confess to you that you were quite correct in insisting that we simplify the original manuscript. Joel Brock and I have already gotten many compliments on the article - compliments we undoubtedly would not have received for the original version which was too technical. You should also congratulate Jeff Schmidt on a fine editing job. He was a pleasure to work with and he made a number of excellent stylistic improvements.

Best regards!

Yours sincerely,

Robert J. Birgeneau

Robert J. Birgeneau

RJB/km

JUL 1989
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S 000071

Helsinki University of Technology
Low Temperature Laboratory
Dr. Olli V. Lounasmaa, Director,
Research Professor of the Academy
of Finland

Helsinki, Oct. 12, 1989

Ms. Gloria Lubkin
Physics Today

Dear Gloria:

I was very pleased with the typographical appearance of my article in the October issue of Physics Today. Please convey my appreciation to Jeff Schmidt as well.

Best wishes,
Sincerely yours,

Olli Lounasmaa

D00140

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PHYSICS TODAY
OCT 1989

KØBENHAVNS UNIVERSITET
NIELS BOHR INSTITUTET

Blegdamsvej 17, DK-2100 København Ø
Telefon: 01 42 16 16
Telegram: PHYSICUM, København
Telex: 15216 nbl dk

to Cl Jan 15

December 14 '89

Dear Gloria

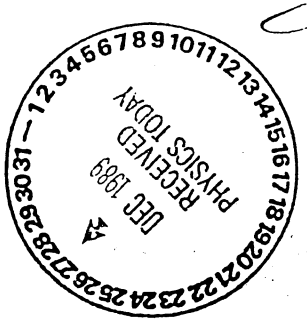
I have just received a copy of the December issue of Physics Today. I want you to know how very pleased I am with the way my piece has come out. Please tell that also to all those others who worked on it.

I am just back from hectic but very pleasant days in Stockholm where Ida and I attended the Nobel circus.

Warm greetings

yours

Boam



S 000067

CALIFORNIA INSTITUTE OF TECHNOLOGY

Arthur Amos Noyes Laboratory of Chemical Physics, Mail Code 127-72
Pasadena, California 91125

AHMED H. ZEWAIL

LINUS PAULING PROFESSOR
OF CHEMICAL PHYSICS

Telephone: (818) 356-6536
Telex: 675425 CALTECH PSD
FAX: 818-792-8456

May 9, 1990

Mr. Jeff Schmidt
Physics Today
140 E. 45th Street (37th Floor)
New York, New York 10017

Dear Jeff:

Thank you very much for sending me the final publication of the special issue. I really wanted you to know in writing that you did a great job! You might be interested in keeping in your records the letter I sent to the editor.

With my very best wishes,

Ahmed Zewail

Ahmed H. Zewail

AHZ:lm

Enclosure

P.S. 1 I checked in all the correspondence, and despite your outstanding credentials, they still spelled laser as "lasser" on line five of the article- - I still think you are a great guy.

P.S. 2 Could you please send me the photos and slides. Thank you.

CALIFORNIA INSTITUTE OF TECHNOLOGY

Arthur Amos Noyes Laboratory of Chemical Physics, Mail Code 127-72
Pasadena, California 91125

AHMED H. ZEWAIL

LINUS PAULING PROFESSOR
OF CHEMICAL PHYSICS

Telephone: (818) 356-6536
Telex: 675425 CALTECH PSD
FAX: 818-792-8456

MAY 1990
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PHYSICS TODAY

May 9, 1990

Dr. Gloria Lubkin
Editor
Physics Today
140 E. 45th Street (37th Floor)
New York, New York 10017

Dear Dr. Lubkin:

This letter is regarding the Physics Today special issue on Dynamics of Molecular Systems. As you know, I was one of the authors of the special issue, and I interacted with Jeff Schmidt in the process of producing our article. I wanted you to know that Jeff has made very important suggestions, and I really do appreciate his genuine interest in producing high quality articles. He is excellent and Physics Today is lucky to have him.

I was delighted to write the article, and I hope that this special issue will be of interest to your readers.

Sincerely yours,

Ahmed H. Zewail

AHZ:lm

S 000062

GE Corporate Research
and Development

Research and Development Center
General Electric Company
P.O. Box 8, Schenectady, NY 12301
518 387-

February 25, 1991

Gloria B. Lubkin, Editor
PHYSICS TODAY
335 East 45 Street
New York, NY 10017

Dear Gloria;

I was happy to see the excellent final appearance of the article with Harvey Scher and Mike Shlesinger "Time-Scale Invariance in Transport and Relaxation", which appeared in PHYSICS TODAY this past January. I wish to thank you and your staff (especially Jeff Schmidt) for all the help and patience you provided us.

Unfortunately, circumstances associated with 3 authors in 3 different locations resulted in our neglecting to acknowledge the debt to Dr. Donald G. LeGrand and Mr. William V. Olszewski of the General Electric Research and Development Center for kindly providing the photographs of polycarbonate shown on the cover, on the Table of Contents page, and in Figure 1. I submit herein a Letter for publication in PHYSICS TODAY to partly correct the omission. I hope you will consider its publication at an early date.

Thank you for your kind attention to this matter.

Sincerely yours,

John

Dr. John T. Bendler
Chemical Research Center
(518) 387-6632
FAX (518) 387-5592

PS: If the editorial department is finished with the original negatives of the polycarbonate pictures, I would appreciate it if they would send them back to me so I may return them to Dr. LeGrand.

D00136

RECEIVED
– 4 1991
PHYSICS TODAY

Time-Scale Invariance in Polycarbonate

Due to an oversight, the article on time-scale invariance in disordered materials (January 1991, pages 26-34) neglected to acknowledge thanks owed to Dr. Donald G. LeGrand and Mr. William V. Olszewski of the General Electric Research and Development Center for their efforts in preparing the polarized-light samples of polycarbonate, photographs of which appeared on the cover, on the Table of Contents page, and in Figure 1 on page 27.

Furthermore, owing to space limitations, it was also not possible to point out the central role which LeGrand and Olszewski 's work played in demonstrating the applicability of the Kohlrausch/ Williams-Watts ("stretched-exponential") decay function to mechanical relaxation and recovery in polycarbonate and (subsequently) in a wide variety of other engineering thermoplastic resins. The work of Jones, et. al. (reference 22 of the above article) was the first to show that the low-temperature, γ-peak is described by KWW, yet the time-scale of the γ process is in the microsecond range at room temperature. The viscoelastic processes responsible for the polycarbonate recovery behavior shown in the figure on page 34 (and fitted therein to the KWW function) are six to eight orders of magnitude slower. These latter events are directly related to stress relaxation and creep, and thus dominate room-temperature behavior of the glassy polymer.

Three experimental aspects of LeGrand and Olszewski 's work enabled the KWW behavior to be recognized and isolated. (1) Emphasis was placed on recovery (rather than relaxation or creep) so that elastic and plastic components of strain were absent or frozen; (2) A thorough thermal aging ("press-polishing") was carried out before experiments were begun to eliminate contributions from thermal history; and (3) the unusually-large strain-optical coefficient of polycarbonate allowed very small amounts of recovery to be easily monitored optically.

A surprising result of the small-strain research on high molecular weight polycarbonate was the discovery (or renewed appreciation) that all mechanical deformation below the glass transition, T_g, could recover as long as the polymer chains were not broken. It had in fact been known to experimentalists for many years that yielded and crazed polymer recovers upon heating above T_g, but many theorists (and rheologists) are surprised to hear that there is no true plastic flow in these plastics. The reason is that the chain entanglement network is difficult to reorganize in the glass state, so that while it may distort, it retains an almost perfect memory of the original geometry frozen in at T_g.

Department of Nuclear Engineering and Engineering Physics

University of Wisconsin

153 Engineering Research Building
1500 Johnson Drive
Madison WI 53706-1687
Phone (608) 263-1646

January 3, 1992

Professor James D. Callen
521 Engineering Research Building
1500 Johnson Drive
Madison, WI 53706-1687
Phone (608) 262-1370
FAX (608) 262-6707
CALLEN@UWM

Gloria B. Lubkin, Editor
Physics Today
335 East 45th Street, 37th floor
New York, NY 10017

Dear Gloria:

As you are undoubtedly aware by now, we have finally completed the two articles on "Progress Toward a Tokamak Fusion Reactor" and "Stability and Transport Processes in Tokamak Plasmas," which will be published in your January issue. I apologize for its taking so long for us to complete them -- it took me being on sabbatical this year to have enough time to finally get them completed, even with Rob Goldston ultimately assuming the lead role on the first article. I appreciate your forbearance with our delayed schedule. We are especially pleased that both articles are being published in a single issue with a picture of TFTR on the cover since we now realize how unlikely that situation is under normal circumstances. Finally, I would like to note how helpful your technical editors, Jeff Schmidt and Graham Collins, have been in polishing up these articles and making them much more understandable to the physics community beyond plasma physics. In particular, I learned a lot about simplicity and precision in technical writing from Jeff Schmidt's careful, patient technical editing of my manuscript and my numerous clarifying discussions with him. This experience should be quite helpful to me in my present project -- writing a graduate level textbook on plasma physics.

With regard to the free copies of the January issue and offprints which, according to your letter of 22 November, you will be providing for each article, could you please send all of them (total of 6 magazine copies plus 100 + 100 offprints) to me at my University of Wisconsin address. I will take care of distributing them equitably to the six coauthors of the two articles in this cooperative venture. For your reference, we are also ordering through the AIP 600 copies of a special offprint package comprised of the cover and the two articles.

As this saga draws to a close, I wish you the best of luck in dealing with authors and acquiring manuscripts from them in a timely manner -- to get them into a magazine that has to be balanced and timely, but in any case must go out monthly. It must be a nerve-wracking job. Best wishes for continued success at it.

Sincerely,

James D Callen

James D. Callen
Kerst Professor of Nuclear Engineering
& Engineering Physics and Physics

JDC:blg
cc: J. Schmidt

-GLORIA

From phtsong@twnas886.bitnet Sat May 15 22:12:40 1993
Date: Sun, 16 May 1993 10:12 PDT
From: PHTSONG@ccvax.sinica.edu.tw
Subject: article
To: jds@aip.bitnet

Dear Dr. Schmidt:

I am very glad to see the article on atom-probe field ion microscopy in print. You have done an excellent editing job. I would like to thank you very much for that. The only minor error I can find is the direction of the arrow of the line drawing of Fig. 7 which has been reversed. But readers should be clear which direction the adatom moves. I am also happy to see the cover comes out very nicely.

Now that the article is published, would you kindly ask the printer to return all the slides and photographs to me using my Taiwan address.

Thank you again.

Sincerely,

Tien T. Tsong

Department of History
West Virginia University
College of Arts and Sciences

RECEIVED
AUG 23 1993
PHYSICS TODAY

20 August 1993

Dr. Gloria B. Lubkin
Editor
Physics Today
335 East 45th Street
New York, NY 10017

Dear Dr. Lubkin:

Thanks for yours of 4 August inviting Rick Slavings and myself to contribute a paper on "The Industrialization of American Astronomy, 1890-1940." We accept with great pleasure.

There is, however, one problem. My wife has been offered a deanship at University of Nebraska-Lincoln and the powers that be are working on a professorship for me. This process is still in an early stage, but may consume a fair amount of my attention and energy this fall. If the matter has a happy ending (and Nebraska would be a good venue for both of us), the new jobs will begin 1 January 1994. This entails moving. Of course, with the prospect of moving to College Park facing you and the PT staff, I need hardly say that even in the best of organizations, there will be some disruption and slippage. Thus I am not able to give you an exact date for delivery of a manuscript. I will do so just as soon as things become clear on this end. Late winter 1994 will be my goal. Earlier if possible.

S 000059

304 293-2421 □ 202 Woodburn Hall □ Morgantown, WV 26506
Equal Opportunity / Affirmative Action Institution

Lankford to Lubkin, 20 August 1993

I have been reading on the topic of Big Science and want to recast the paper as follows. The new title would be something like: **THE MAKING OF BIG SCIENCE: THE INDUSTRIALIZATION OF AMERICAN ASTRONOMY, 1880-1940.** And we would begin with a paragraph placing the problem in the context of the history of big science. This will be done with appropriate references to physics as the exemplar of Big Science. The literature suggests that a major problem is understanding the pre-1940 roots of Big Science in America and this paper will be aimed at that problem. If all goes well, I will us this problem as the topic for my seminar at Nebraska when I go to interview. A little pre-testing feed back is always useful.

I hope that Jeff Schmidt will be assigned to work with me once you have the manuscript. He is first-rate and we worked very well together on the 1990 paper.

Sincerely,

John Lankford
Professor of the HIstory of Science

S 000060

Room 6-101
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF PHYSICS
CAMBRIDGE, MASSACHUSETTS 02139-4307

December 8, 1993

Gloria Lubkin
Editor, Physics Today
One Physics Ellipse
College Park
MD 20740

Dear Gloria:

Yesterday I received the November issue of Physics Today containing the article about the Olympiad examinations. I think that the editorial and production staff are to be commended for doing such an excellent job on a very tricky manuscript. It looks really very nice.

I hope that things are settling down in your new location and that you are finding the move congenial.

With warm regards, and best wishes for the holidays.

Yours,

Tony

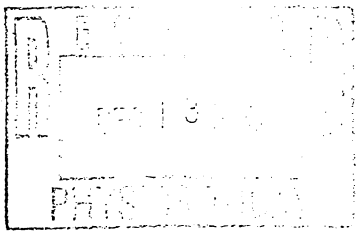
A. P. French

Room 6-101, Physics Dept.
INSTITUTE OF TECHNOLOGY
CHUSETTS AVENUE
DGE, MASS. 02139





Gloria B. Lubkin
Editor, Physics Today
One Physics Ellipse
College Park
MD 20740



20740-3842 01

D00068

From lagally@neep.engr.wisc.edu Sat Jan 8 22:24:30 1994
From: lagally@neep.engr.wisc.edu
Subject: APS meeting
To: jds@aip.org
Date: Sat, 8 Jan 94 21:24:26 CST
Cc: lagally@neep.engr.wisc.edu (Max G. Lagally)

Jeff: I don't know whom to ask, so I ask you becasue you told me last year. I have an invited lecture to give at APS in March (Adler Lecture) and because I have a tight schedule and am trying to get make arrangements, I would like to know what day my talk is. Can you find out for me please? Thanks.

I have had numerous compliments on the article,even comments from class mates I haven't seen for many years.

Max

--
Max G. Lagally
E. W. Mueller Professor
University of Wisconsin--Madison
(608) 263-2078
lagally@engr.wisc.edu

KØBENHAVNS UNIVERSITET

NIELS BOHR INSTITUTET

Blegdamsvej 17, DK-2100 København Ø
PHONE: (+45) 3532 5200
PHONE, direct (+45) 353 25
TELEFAX, national: (31) 42 10 16
TELEFAX, internat: +45 31 42 10 16

TELEFAX

to: Mr. Jeff Schmidt

page 1 of: 2.

Telefax no.: 001-301-2090842

date: 6/21/94

Ref.:

Dear Mr. Schmidt. Attached please find corrections to my piece for Ph. Today. I compliment you on your editing — and on your excellent choice of pictures! Perhaps it is too early to ask:

(1) How many free offprints

(2) How many can I order? Price?

I'd like them all with the cover.

Please contact if there are further questions. Best regards as to

Gloria Brantas

D00059

PHYSICS TODAY
from Jeff Schmidt

Blegdamsvej 17, DK-2100 København Ø
PHONE: (+45) 3532 5200
PHONE, direct (+45) 353 25
TELEFAX, national: (31) 42 10 16
TELEFAX, internat: +45 31 42 10 16

18 July 94

Gloria —

I don't know if you saw this. It's a note from Abraham Pais complimenting us on our editing of his article.

Jeff

LEFAX

Jeff Schmidt
12.
301-209842
6/21/94

1. Attached please
2 my piece for Ph. Today.
[illegible]
I compliment you on your editing —
and on your excellent choice of pictures!
Perhaps it is too early to ask:
(1) How many free offprints
(2) How many can I order? Price?
I'd like them all with covers.
Please contact if there are further
questions. Best regards as to
Gloria
Bram Pais

S 000068

KØBENHAVNS UNIVERSITET
NIELS BOHR INSTITUTET

Blegdamsvej 17, DK-2100 København Ø
PHONE: (+45) 3532 5200
PHONE, direct (+45) 353 25
TELEFAX, national: (31) 42 10 16
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TELEFAX

to: Mr. Jeff Schmidt
page 1 of: 2.
Telefax no.: 001-301-2090842
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(1) How many free offprints
(2) How many can I order? Price?

I'd like them all with covers.

Please contact if there are further questions. Best regards as to Gloria

Bram Pais

University of Illinois
at Urbana-Champaign

Department of Physics

Loomis Laboratory of Physics
1110 W. Green Street
Urbana, Illinois 61801

James P. Wolfe

Telephone: (217) 333-2374
Telefax: (217) 244-2278
E-Mail: j-wolfe@uiuc.edu

Jeff, FYI

RECEIVED
SEP 18 1995
PHYSICS TODAY

September 8, 1995

Stephen Benka, Editor
Physics Today
One Physics Ellipse
College Park MD 20740-3843

Dear Steve,

Many thanks to you and your staff for the excellent job you did with my article in the September 1995 issue of Physics Today. The graphics reproduced beautifully, and, of course, the cover is stunning. My interactions with Jeff Schmidt were very pleasant and constructive. The article benefitted greatly from your reviewers' suggestions; it is much better than the one I originally sent you.

The alliteration on the cover, "Seeing Sound in Solids," adds a nice touch. Thanks for inventing it. I will look forward to working with you again in the future.

Sincerely,

Jim Wolfe
Professor of Physics

S 000079

University of Illinois
at Urbana-Champaign

Department of Physics
Loomis Laboratory of Physics
1110 W. Green Street
Urbana, Illinois 61801

James P. Wolfe
Telephone: (217) 333-2374
Telefax: (217) 244-2278
E-Mail: j-wolfe@uiuc.edu

October 20, 1995

Jeff Schmidt
Physics Today
One Physics Ellipse
College Park MD 20740-3843

Dear Jeff,

Thanks for returning the graphics materials. It was a real pleasure working with you on the article. You and your staff did a terriffic job.

I recently received a phone call from one of the organizers of the Acoustical Society Meeting (November, St. Louis) with a request to submit some of the "stunning" photos in Physics Today to their first Gallery of Acoustics. It is exciting to publish an article which has appeal to experts as well as (hopefully) the general reader.

I will look forward to working with you in the future.

Sincerely,

Jim Wolfe
Professor of Physics

S 000026

Jeff,

Moses Chan says

"Please thank Jeff for me."

"Thanks" from Moses Chan.

— Steve 7/15/96

PHYSICS TODAY
from Gloria B. Lubkin 2/3/97

Steve, Jeff,
Paul & Beverly,
Albert Wheelon asks that if we receive letters to the editor about his article that we send him copies.
He's very pleased with the way his article turned out.

S 000056

From: Stephen Benka
To: JSCHMIDT, bgl
Date: 14 Feb 1997 (Fri) 17:24
Subject: Thought you'd like to know

Jeff, Barbara,

I just got a visit from my PhD advisor, who had a major complaint about about December issue. The Sikivie and Amato articles were "too damn good" and he spent far too much time with the magazine.

I thought you'd like to know. Kudos to you both.

--Steve

From: "George Crabtree" <george_crabtree@qmgate.anl.gov>
To: "Judy Barker" <jbarker@aip.acp.org>
Date: 15 Apr 1997 (Tue) 19:24
Subject: Vortex Article

Subject: Vortex Article
Time: 5:26 PM
Date: 4/15/97

Dear Steve, Jeff, Barbara, and Judy,
I just received the offprints for our article on Vortex Physics in the April issue of Physics Today. What fast service! The article looked very good in the magazine, and I got a warm feeling on finally seeing it in print. Thanks to all of you for your efficient and competant efforts to bring the article out. For David and me, it is gratifying to see the fruits of our work appear with such high production standards. Thank you all once again.
Sincerely,
George Crabtree

George Crabtree - MSD/223
Argonne National Laboratory
9700 S. Cass Avenue
Argonne, IL 60439
phone: 630-252-5509
fax: 630-252-7777
e-mail: crabtree@anl.gov

CC: "David Nelson" <nelson@cmt.harvard.edu>

Received: from qmgate.anl.gov (qmgate.anl.gov [146.137.160.48]) by dns2.anl.gov (8.6.11/8.6.11) with SMTP id SAA13148; Tue, 15 Apr 1997 18:26:25 -0500
Message-Id: <n1350993755.29032@qmgate.anl.gov>
Date: 15 Apr 1997 18:24:11 -0500
From: "George Crabtree" <george_crabtree@qmgate.anl.gov>
Subject: Vortex Article
To: "Judy Barker" <jbarker@aip.acp.org>, "Steve Benka" <steveb@aip.org>,
"Barbara Levi" <bgl@aip.org>, "Jeff Schmidt" <jds@aip.org>
Cc: "David Nelson" <nelson@cmt.harvard.edu>
X-Mailer: Mail*Link SMTP-QM 4.0.0

From: Stephen Benka
To: jeff
Date: 7/25/97 4:38pm
Subject: Congratulations!!

Jeff, you have my heartfelt congratulations on the birth of Joshua Rose, and my very best wishes for all three of you.

--Steve

Documentation
(such as it is)

August 19, 1997

Jeff,

It is the responsibility of the article editors at Physics Today to produce finished articles starting from any point in a given article's development.

Thus the responsibility of generating "ready to edit" articles is in part yours. For one example, we had agreed that you would obtain Colson's article on free-electron lasers, and have it edited in case we needed it for an emergency fifth article in the October special issue on the electron; otherwise we could drop it into the magazine a month or two later. Fortunately, we don't need it for the special issue; to my knowledge you have yet to acquire the article.

You were my first choice to edit several articles in late stages of development in the recent past, but turned them all down: Fink (March); Cohn (May; I edited that one, while you edited none that month); Jeanloz to edit with Soulen (August); a second article for October (you were reluctant to take Perl); Kasap for November.

As recently as two months ago, when you wanted to take paternity leave (which I OK'ed), you told me you didn't want any additional articles through the end of this year. As noted above, I offered you some anyway and you turned them down. You expressed no interest in articles, so I left you out of my plans for them.

I understand your special circumstances and once again offer you my heartfelt congratulations on the birth of Joshua Rose. If you are now ready once again to accept the responsibilities that go with feature articles, I can supply you with as many as you want. The articles that are currently "ready to edit" have been assigned to others. Nevertheless, I am sure we can reach a mutually acceptable state of affairs.

Steve

Jeff wasn't in the office all week, from the 19th to the 22nd, and therefore didn't see this memo or get any more articles until Monday, Aug 25

D00674

From: "Martin L. Perl" <martin@SLAC.Stanford.EDU>
To: Jeff Schmidt <jds@aip.org>
Date: 2 Sep 1997 (Tue) 17:13
Subject: Leptons After 100 Years Article

Dear Jeff

Thank you for changing my ugly duckling of a manuscript into a beautiful swan. You have done a wonderful job.

I have the following comments:

Page 35, column 2: the ***** in "See box 1 on page ****** 36 has not been inserted yet.

Page 39, column 2: the ***** in "See box 2 on page ****** 40 has not been inserted yet.

Page 36, bottom equation in column 2: space required between virtual and Z0.

Page 38, Figure 4: TAU DETECTION scheme might be changed to TAU DETECTION apparatus.

Page 40, Box 2, column i: yes, each h should be an h-bar.

Page 40, References: the names in Ref. 3 are spelled correctly; in Ref. 10 the page number is 2074; in Ref 16 the page number is indeed 79c, it is a conference proceedings and every page has a c added to the page number.

Thank you so much Jeff for all your helpa dn guidance. I am greatly looking forward to the issue.

Sincerely yours

Martin Perl

Received: from mailbox.SLAC.Stanford.EDU (root@[134.79.18.29])
 by SERV05.SLAC.STANFORD.EDU (PMDF V5.1-7 #16063)
 with ESMTP id <01IN64PIHI2W000SYX@SERV05.SLAC.STANFORD.EDU> for jds@aip.org;
 Tue, 2 Sep 1997 14:13:39 PDT
Received: from cobra (COBRA.SLAC.Stanford.EDU [134.79.129.50])
 by mailbox.SLAC.Stanford.EDU (8.8.5/8.6.11) with SMTP id OAA18977 for
 <jds@aip.org>; Tue, 02 Sep 1997 14:13:36 -0700 (PDT)
Date: Tue, 02 Sep 1997 14:13:35 -0700
From: "Martin L. Perl" <martin@SLAC.Stanford.EDU>
Subject: Leptons After 100 Years Article
Sender: martin@SLAC.Stanford.EDU
To: Jeff Schmidt <jds@aip.org>
Message-Id: <340C817F.FF6@slac.stanford.edu>
Organization: SLAC, Stanford University
X-Envelope-To: jds@aip.org
Mime-Version: 1.0
X-Mailer: Mozilla 3.01 (X11; I; AIX 2)
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

From: "Martin L. Perl" <martin@SLAC.Stanford.EDU>
To: Jeff Schmidt <jds@aip.org>
Date: 7 Oct 1997 (Tue) 20:33
Subject: (no subject)

Dear Jeff:

The October Physics Today came today. You and your staff have made my manuscript into a wonderful and beautiful article. The color is great. Thank you very much. Indeed the entire issue is great.

Thanks again and please express my appreciation to Gloria.

Martin Perl

Received: from mailbox.SLAC.Stanford.EDU (root@[134.79.18.29])
 by SERV05.SLAC.STANFORD.EDU (PMDF V5.1-10 #23033)
 with ESMTP id <01IOJ7VBP07600079U@SERV05.SLAC.STANFORD.EDU> for jds@aip.org;
 Tue, 7 Oct 1997 17:33:26 PDT
Received: from cobra (COBRA.SLAC.Stanford.EDU [134.79.129.50])
 by mailbox.SLAC.Stanford.EDU (8.8.5/8.6.11) with SMTP id RAA00967 for
 <jds@aip.org>; Tue, 07 Oct 1997 17:33:24 -0700 (PDT)
Date: Tue, 07 Oct 1997 17:33:23 -0700
From: "Martin L. Perl" <martin@SLAC.Stanford.EDU>
Subject: (no subject)
Sender: martin@SLAC.Stanford.EDU
To: Jeff Schmidt <jds@aip.org>
Message-Id: <343AD4D3.15FB@slac.stanford.edu>
Organization: SLAC, Stanford University
X-Envelope-To: jds@aip.org
Mime-Version: 1.0
X-Mailer: Mozilla 3.01 (X11; I; AIX 2)
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

From: "Ross, Ian (Ian)** CTR **" <iross@lucent.com>
To: "'Jeff Schmidt'" <jschmidt@aip.acp.org>
Date: 11 Oct 1997 (Sat) 5:10
Subject: RE: Closure

Jeff,

Thanks for all your effort. It was a pleasure to work with you.

Ian

COPIES GIVEN TO
HARRIS & BENKA
15 OCT. 97.

From: Stephen Benka
To: CHARRIS, BRODSKY, horst
Date: 13 Oct 1997 (Mon) 11:44
Subject: Some strong praise

Charles, Marc, Horst,

Here's some strong praise for Graham and Jeff:

From: <LANDAUE@watson.ibm.com>
To: ACP.AIP(gcollins)
Date: 10/8/97 1:44pm
Subject: Your discussion of Grover's algorithm in the latest issue.

Dear Graham,

First of all, a splendid exposition. Am I too honest if I admit that your box actually helped me? And your item correctly stressed that this is the algorithm that may point the way to how we may really want to use quantum computation. Furthermore you pointed to the perils of decoherence. . .
Regards, Rolf

From: Martin L. Perl <martin@SLAC.Stanford.EDU>
To: Jeff Schmidt <jds@aip.org>
Date: 7 Oct 1997 (Tue) 20:33
Subject: (No subject).

Dear Jeff:

The October Physics Today came today. You and your staff have made my manuscript into a wonderful and beautiful article. The color is great. Thank you very much. Indeed the entire issue is great.

Thanks again and please express my appreciation to Gloria.

Martin Perl

CC: gcollins, jeff, glubkin

From: Jeff Schmidt
To: BRODSKY
Date: 7 Nov 1997 (Fri) 10:36
Subject: Follow-up on meeting

Marc --

Thanks again for meeting with me about affirmative action at Physics Today. I suggest that you talk also with Jean Kumagai, who is very knowledgeable about the affirmative action issue at the magazine. Also, if you would like more ideas about ways in which AIP could take affirmative action, you might wish to establish an affirmative action committee.

-- Jeff

CC: jschmidt

Mail Envelope Information

Subject: Follow-up on meeting
Creation Date: 7 Nov 1997 (Fri) 10:36
From: Jeff Schmidt

Created By: ACP.AIP:jschmidt

Recipients	**Action**	**Date & Time**
Post Office ACP.AIP 10:43 am	Delivered	7 November 1997
BRODSKY (Marc Brodsky) 11:01 am	Opened	7 November 1997
jschmidt CC (Jeff Schmidt) 10:40 am	Opened	7 November 1997

Domain.Post Office	**Delivered**	**Route**
ACP.AIP	7 November 1997 10:43 am	ACP.AIP

Files	**Size**	**Date & Time**
MESSAGE	376	7 November 1997 10:36 am

Options

Auto Delete:	No
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Notify Recipients:	Yes
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Reply Requested:	No
Return Notification::	None
Concealed Subject:	No
Security:	Normal
To Be Delivered:	Immediate
Status Tracking:	Delivered & Opened

From: Stephen Benka
To: jeff
Date: 5 Feb 1998 (Thu) 20:15
Subject: Sullivan & Barth

Jeff,

I've gone through both articles, and left them on your chair with my notes.

I think they make a great package for our readers. Thanks for your help getting them done in time.

--Steve

From: Kai-Henrik Barth <barth002@tc.umn.edu>
To: Jeff Schmidt <jschmidt@aip.acp.org>
Date: 21 Apr 1998 (Tue) 11:05
Subject: reprints received

Dear Jeff,

I just came back from Europe and found the reprints of my article waiting for me on my desk in my university office. Thanks again for all your effort and time. I am very happy with the final product.

All the best
Kai
--
****

Kai-Henrik Barth
Program in History of Science and Technology
435 Walter Library
University of Minnesota
Minneapolis, MN 55455
612-626-8722 612-872-9323 (home)
barth002@tc.umn.edu
http://umn.edu/home/barth002/

****

Received: from mhub3.tc.umn.edu
([128.101.131.53])
by acpgate.acp.org; Tue, 21 Apr 1998 11:00:45 -0400
Return-Path: <barth002@tc.umn.edu>
Received: from pub-14-a-14.dialup.umn.edu by mhub3.tc.umn.edu; Tue, 21 Apr 98 10:00:42
-0500
Message-ID: <353CB599.433A9860@tc.umn.edu>
Date: Tue, 21 Apr 1998 09:05:00 -0600
From: Kai-Henrik Barth <barth002@tc.umn.edu>
Reply-To: Kai H Barth <barth002@tc.umn.edu>
Organization: University of Minnesota
X-Mailer: Mozilla 4.01 (Macintosh; I; PPC)
MIME-Version: 1.0
To: Jeff Schmidt <jschmidt@aip.acp.org>
Subject: reprints received
X-Priority: 3 (Normal)
Content-Type: text/plain; charset=us-ascii; x-mac-type="54455854";
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S 000021

Steve ceh

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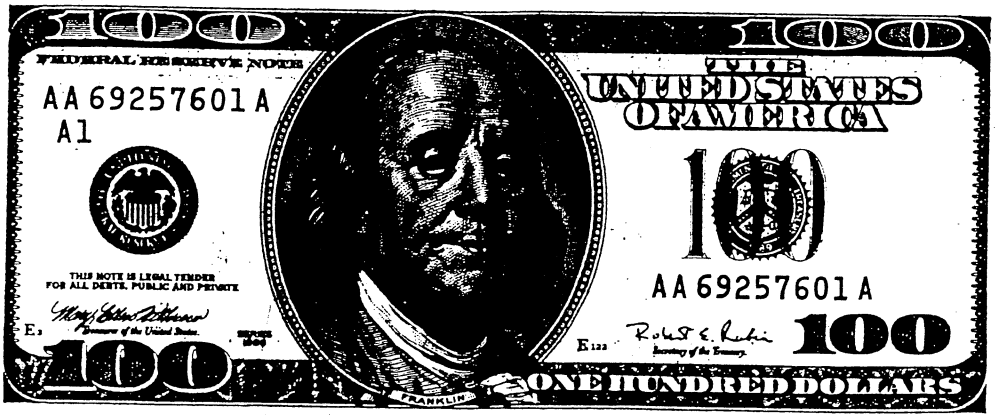
INTER - OFFICE MEMORANDUM

May 21, 1998

I, Jeffrey Schmidt, hereby acknowledge receipt of a cash "Pat on the Back" award in the amount of $100. I understand that my year-end pay will reflect a "gross up" of this award.

J. Schmidt 23 May 98

Jeffrey Schmidt DATE



S 000022

FIRST PAGES
2 JUN 98

Nicely done
-SB 6/2/98

TRENDS IN ELECTROMECHANICAL TRANSDUCTION

The demand for more sophisticated sensors and actuators in industrial equipment and consumer products is behind today's push for new transducer materials and geometries.

By Ilene J. Busch-Vishniac

In today's world, it is nearly impossible to avoid contact with electromechanical sensors and actuators over the course of the day, although we rarely recognize them. They drive the keyless entry systems, the light switches that respond to sound or motion, the detectors in cars that determine whether seat belts are fastened and the sound-receiving and sound-generating parts of the telephone, to name just a few examples.

Electromechanical transducers are devices in which one connection to the environment conducts electrical energy and another conducts mechanical energy. Examples include microphones, loudspeakers, accelerometers, strain gauges, resistance thermometers, solenoid valves and electric motors.

There are many ways to categorize transducers. The largest breakdown divides them into sensors and actuators. Transducers used to monitor the state of a system, ideally without affecting that state, are sensors. Transducers that impose a state on a system, ideally without regard to the system load (the energy drained by the system), are actuators. However, this division, although useful, doesn't get to the heart of what makes transducers work.

It is useful to consider transducers from the perspective of energy conversion mechanisms, an approach that also yields two broad classes of devices: those based on geometry and those based on material properties. An example of a geometry-based transducer is a condenser microphone, which is a parallel-plate capacitor with a DC voltage bias between the plates. Sound causes one of the plates to move, thus changing the gap between the plates. This change dynamically alters the capacitance and produces an output voltage. An example of a material property–based transducer is a piezoelectric accelerometer. Piezoelectric materials are those in which there is coupling between the electric field and the mechanical field so that imposed electric fields cause dimensional changes and applied material strains produce voltages. In a piezoelectric accelerometer, acceleration strains the transduction material, giving rise to an electric field that is sensed as a voltage. Of course, these two broad classes may be further refined either in terms of the function of the transducer (for example, sensing fluid flow) or in terms of narrower classes of energy conversion (for example, transduction based on piezoelectricity). The table on page ***** shows the main electromechanical transduction mechanisms. Here the definition of "mechanical" is very liberal, including thermal and optical phenomena. 31

The 1970s and 1980s brought dramatic changes in electronics and signal processing techniques, but only modest changes in electromechanical transducers. As a result, transducers are commonly the least reliable and most expensive elements in measurement and control systems. For this reason, there is a growing emphasis on the field of transduction, and significant changes are beginning to emerge.

Pervasiveness

In the last few decades, electronics have been incorporated into products of all sorts. Their growth in consumer products has been driven by two phenomena: the public's perception that low-technology (nonelectronic) devices are not as good as high-technology devices, and the push for products with "intelligence."

Low-technology devices whose market is being overtaken by high-technology counterparts range from office equipment such as staplers and pencil sharpeners to kitchen appliances such as juice squeezers. In many cases, we are replacing purely mechanical functions performed under human control by automated electromechanical operations, leading to the introduction of sensors and actuators.

The growing market for intelligent products (those with a decision-making process) comes from the desires to automate some functions that people perform and to add functions that people cannot perform. For instance, although people can control room lights by hand, they often prefer to employ motion or sound detectors and control electronics instead. Examples of intelligent products that extend certain functions beyond standard human performance are smoke detectors, automobile airbags and clothes dryers with autodry cycles.

The growth in transducer markets has been rapid and is predicted to continue on its current pace through the turn of the century. The sensor market alone rose to become a $5 billion a year industry by 1990, with projections for a $13 billion worldwide market by the year 2000—an 8% annual growth rate over the decade.[1]

ILENE BUSCH-VISHNIAC is *Temple Professor of Mechanical Engineering at the University of Texas at Austin and a visiting professor of aerospace and mechanical engineering at Boston University.*

S 000004

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From: Stephen Benka
To: jeff
Date: 15 Jul 1998 (Wed) 12:34
Subject: A call from Segev

Jeff,

I just spoke with Moti Segev, who is very appreciative of your efforts on his article. He's quite happy with the result.

Well done.

--Steve

From: Toni Feder <tfeder@wam.umd.edu>
To: stephen benka <sbenka@aip.acp.org>
Date: Mon, Oct 5, 1998 7:00 pm
Subject: Praise for Jeff & Gloria

Hi Jeff,

I saw Adrian Parsegian last week one evening when he was in Durham. He spoke extremely highly of you, saying how impressed he was with you, how articulate you are, and how much he enjoyed working with you on his article last year.

Just thought I'd pass this on....

Oh, and while I'm at it, as I already told Gloria, in a conversation with MIT's Hale Bradt last week, he said he was generally impressed by PT, and recalled that some years back, he gave Gloria feedback on a "messed up" draft of a story on pulsars she'd sent him. He continued that he didn't see the article again until it appeared in print, and he was really impressed. "She got all the nuances right. She must be really good. I admire her."

Toni

```
Received: from wilson.acpub.duke.edu
       ([152.3.233.69])
       by acpgate.acp.org; Mon, 05 Oct 1998 18:58:59 -0400
Received: from wam.umd.edu (async251-33.async.duke.edu [152.3.251.33])
       by wilson.acpub.duke.edu (8.8.5/Duke-4.6.0) with ESMTP id SAA08361;
       Mon, 5 Oct 1998 18:58:56 -0400 (EDT)
Message-ID: <36194F7D.FCE9A1C6@wam.umd.edu>
Date: Mon, 05 Oct 1998 19:00:18 -0400
From: Toni Feder <tfeder@wam.umd.edu>
Reply-To: tfeder@wam.umd.edu
Organization: Physics Today
X-Mailer: Mozilla 4.04 (Macintosh; I; PPC)
MIME-Version: 1.0
To: jschmidt@aip.acp.org, stephen benka <sbenka@aip.acp.org>,
        charris@aip.acp.org, glubkin@aip.acp.org
Subject: Praise for Jeff & Gloria
Content-Type: text/plain; charset=us-ascii; x-mac-type="54455854"; x-mac-
creator="4D4F5353"
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A terrific article! SB 11/7/98

CATALYSIS AND SURFACE SCIENCE

Excellent intro. Great book

Modern surface physics is transforming the black art of catalysis, revealing a fascinating choreography followed by reacting atoms and molecules.

Gerhard Ertl and Hans-Joachim Freund

In 1835 the Swedish chemist Jöns Jakob Berzelius coined the term "catalysis" to describe chemical reactions in which progress is affected by a substance that is not consumed in the reaction and hence is apparently not involved in the reaction. Both the term and the phenomenon were heavily debated throughout the rest of the 19th century until the German chemist Wilhelm Ostwald proposed a now generally accepted definition: "A catalyst is a substance that accelerates the rate of a chemical reaction without being part of its final products." The catalyst acts by forming intermediate compounds with the molecules involved in the reaction, offering them an alternate, more rapid path to the final products.

Catalysis is of vital importance. In biological systems, enzymes play a catalytic role. In the chemical and petroleum industries, key processes are based on catalysis. And in environmental chemistry, catalysts are essential to breaking down pollutants such as automobile and industrial exhausts.

If the catalyst and the reacting species are in the same phase (for example, liquid), then the process is known as homogeneous catalysis. More relevant in technical processes is heterogeneous catalysis, where the catalyst is a solid and the reacting molecules interact with its surface from the gaseous or liquid phases.[1] The economic significance of heterogeneous catalysis is reflected in the fact that the worldwide market for solid catalysts in the automotive, petroleum and other industries is on the order of $100 billion per year and growing rapidly.[2]

Typically, the chemical transformation occurs in a flow reactor through which the reacting species pass. Atoms in the surface of the catalyst may form chemical bonds with atoms in impinging molecules, a phenomenon known as chemisorption. If existing bonds in the molecule break, the process is called dissociative chemisorption. The chemisorbed species are mobile on the surface and may bond to other particles, thus leading to new molecules, which eventually leave the surface (desorb) as the desired reaction products.

Detailed identification and characterization of these elementary processes is hampered, however, by fundamental problems. The reacting systems exist merely as two-dimensional phases for which most of the usual methods of investigation are not well suited, and so researchers have had to develop novel surface-sensitive tools. (See the box on page *****.) Furthermore, the surfaces of "real" catalysts are typically rather inhomogeneous. Because their efficiency increases with their total surface area (as long as no diffusion or other limiting transport process is required), finely divided particles are usually applied to a more-or-less inert support material. (See figure 1.) Catalytic activity is often further enhanced by the addition of compounds called promoters.

Nice intro

Making ammonia

The synthesis of ammonia (NH_3) from the elements nitrogen (N_2) and hydrogen (H_2) represents the first—and still one of the most important—large-scale industrial processes based on heterogeneous catalysis.[3] This reaction was first realized in 1909 by Fritz Haber, on a laboratory scale. Only four years later, due mainly to work performed by Carl Bosch and Alwin Mittasch, the first industrial plant of Badische Anilin und Soda-Fabrik, one of today's big chemical companies, started operations. Currently, 150 million tons of ammonia are produced per year worldwide, most of which is converted into fertilizer.

(BASF), ok?

The catalyst developed by Mittasch was essentially iron with small amounts of potassium, aluminum and calcium added as promoters. With only minor modification, it is still in use in most ammonia-producing plants. It is only in recent years that catalysts based on supported ruthenium particles with alkali metal promoters have emerged as possible alternatives; they were first proposed by Japanese researchers.

Despite its great complexity, the mechanism of this important reaction can now be regarded as known. The reaction rate can be successfully modeled on the basis of the kinetics of the elementary steps involved, as figure 2 illustrates.[4]

The necessary information was obtained largely by surface science modeling. An actual catalyst is complex, consisting of small solid particles supported on oxide powders exposing various crystal planes, usually with poorly defined composition and morphology. Consequently, model systems must be developed. By "model," we mean real but simple systems. The simplest model system would be a well-defined single crystal surface whose structure may be varied by choosing different surface orientations. Furthermore, by introducing defects and by modifying the crystal's chemical composition, the morphology of the surface may be changed to bridge the material gap between the models and the actual catalyst.

GERHARD ERTL *is director of the department of physical chemistry, and* HANS-JOACHIM FREUND *is director of the department of chemical physics, at the Fritz Haber Institute of the Max Planck Society in Berlin.*

Are these 2 different depts.??

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Steve —
Ertl and Freund are pleased, — Jeff

(To Benka, 24Nov98)

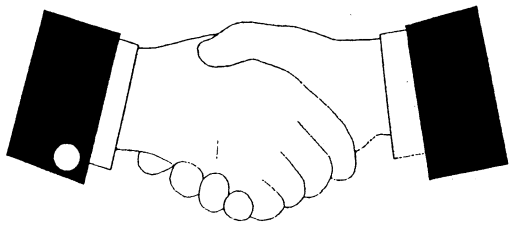
From: HJ Freund <freund@fritz-haber-institut.mpg.de>
To: ACP.AIP(JSCHMIDT)
Date: Tue, Nov 24, 1998 3:09 am
Subject: Physics Today

Dear Dr. Schmidt,
thank you for sending the proofs of the joint paper with Gerhard Ertl. In general we feel that you have done a great job in smothing our english without changing the substance of the paper. Thank you!
1. Question on first page: Physical chemistry (Ertl), chemical physics (Freund) is correct!!
2. In the caption of figure 1, second sentence: instead of" single-crystal oxide surface" please use "single-crystal surfaces of thin oxides films supporting...".
With best regards
Hajo Freund

Hajo Freund
Director, Department CHEMICAL PHYSICS
Fritz-Haber-Institut der Max-Planck-Gesellschaft
Faradayweg 4-6, 14195 Berlin, Germany
Tel. +49-30-8413-4100
Fax. +49-30-8413-4101
e-mail: freund@fhi-berlin.mpg.de
Secretary: Karin Klug, Tel: +49-30-8413-4104,
klug@fhi-berlin.mpg.de
Gabriele Mehnert, Tel: +49-30-8413-4102,
mehnert@fhi-berlin.mpg.de

AMERICAN INSTITUTE OF PHYSICS

AIP INTER-OFFICE MEMORANDUM



To: *Jeffrey Schmidt*

From: *T. C. Braun* TCB *Extension: 2293*

Date: *February 8, 1999*

Subject: *Perfect Attendance*

CONGRATULATIONS!!!!! Our records indicate that you had perfect attendance for 1998. In accordance with our present policy, you have earned a cash incentive bonus of $200 (subject to normal payroll taxes) and 2 bonus days. The bonus days must be taken within the year and may not be carried over into 2000. You will receive a separate check on payday, ~~25 February 1999~~. We thank you for your perfect attendance and wish you another healthy year in 1999.

17 Feb 99

S 000016

From: Jerry Bernholc <bernholc@ncsu.edu>
To: "Jeff Schmidt" <jschmidt@aip.acp.org>
Date: Fri, Jul 30, 1999 12:11 PM
Subject: proofs

Hi Jeff --
You did a great job editing the article! Thank you very, very much!

I went carefully through the proofs and have only very minor changes to suggest. As you requested, I am putting it all into email so that it is easy to forward to the appropriate person.
I will get to the caption soon and you will have it by Monday morning.

-- Jerry

---

1. p. 24, left panel, move the superscript 1 to the end of the fifth line from the bottom, i.e., this line should end with "(DFT),1" and the superscript "1" should be removed from the first line of the right panel.
2. p. 24, right panel, add "(see figure 1)" in the middle paragraph after "new solid C60" Do not add "(See figure 1.)" at the end of this sentence, as currently marked on the proofs.
3. Page 25 top line left (optional change). Change "That process" to "This process"
4. Page 25, marks in margin. Change "* , page 40.)" to "* , page 40, and ref. 4.)" Remove the superscript 4 at the end of the previous sentence.
5. Page 25, close to bottom, left panel. It says before the enumeration: "plane waves can be used as a basis set." The next sentence starts with "Using them" The following sentence also says "* using them makes the results". "Using them" is repeated too many times, and maybe this can be changed.
6. Page 26 left panel, second paragraph, second sentence. Replace "and it has been possible" with "but Alex Seattle's group (also at Berkeley) was able"
7. Page 27, left panel, second paragraph, first word (optional change). Change "That" to "This"
8. Page 28, right panel, second paragraph. Move superscript "10" to after "the grid based methods"
9. Page 28, left panel, second paragraph, third sentence. Change "However, because nanotubes" to "However, because currently made nanotubes"
10. Page 28, left panel, second paragraph, fourth sentence. Change "forthcoming" to "available at the time"
11. Page 29, caption to figure 5, last sentence. Change "researchers" to "Fattebert and Marco Buongiorno Nardelli"
12. Page 29, left panel, line 10. Change "his coworkers" to "Mark Hybertsen"

Regarding changes 3 and 7 ("that" vs. "this"), we may have a difference of opinion. Since I was not born in this country, I asked my wife, who long time ago was a technical copy editor for Plenum. (She is a biostatistician now.) She also liked "this" better. However, I am leaving the final decision to you.

Received: from nemo.physics.ncsu.edu
([152.1.119.80])
by acpgate.acp.org; Fri, 30 Jul 1999 12:11:16 -0400
Received: from bernhol1 (adsl-77-242-74.rdu.bellsouth.net [216.77.242.74])
by nemo.physics.ncsu.edu (8.8.7/8.8.7) with ESMTP id IAA24207
for <jschmidt@aip.acp.org>; Fri, 30 Jul 1999 08:12:17 -0400
Message-Id: <4.2.0.58.19990730120738.00b2e2e0@nemo.physics.ncsu.edu>
X-Sender: bernholc@nemo.physics.ncsu.edu
X-Mailer: QUALCOMM Windows Eudora Pro Version 4.2.0.58
Date: Fri, 30 Jul 1999 12:11:20 -0400
To: "Jeff Schmidt" <jschmidt@aip.acp.org>
From: Jerry Bernholc <bernholc@ncsu.edu>
Subject: proofs
In-Reply-To: <s7a0488b.006@acpgate.acp.org>
Mime-Version: 1.0
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Content-Transfer-Encoding: quoted-printable
X-MIME-Autoconverted: from 8bit to quoted-printable by nemo.physics.ncsu.edu id IAA24207

From: "Jeff Schmidt" <jschmidt@aip.acp.org>
To: ACP.AIP(sbenka)
Date: Tue, Aug 3, 1999 11:50 AM
Subject: The Bernholc article

Steve --

Thank you for checking the Bernholc article promptly. I'm glad you liked it. Jerry Bernholc was pleased, too (see below).

-- Jeff

>>> Jerry Bernholc <bernholc@ncsu.edu> 07/30 12:11 PM >>>

Hi Jeff --

You did a great job editing the article! Thank you very, very much!

I went carefully through the proofs and have only very minor changes to suggest....

CC: ACP.AIP(JSCHMIDT)

Received: from acpgate.acp.org
([149.28.226.101])
by acpgate.acp.org; Tue, 03 Aug 1999 11:50:54 -0400
Received: from ACP-Message_Server by acpgate.acp.org
with Novell_GroupWise; Tue, 03 Aug 1999 11:50:54 -0400
Message-Id: <s7a6d79e.021@acpgate.acp.org>
X-Mailer: Novell GroupWise 5.2
Date: Tue, 03 Aug 1999 11:50:44 -0400
From: "Jeff Schmidt" <jschmidt@aip.acp.org>
To: sbenka@aip.org
Cc: jschmidt@aip.acp.org
Subject: The Bernholc article
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Disposition: inline

2nd pages
26 Aug. 99

SB 8/27/99

GRAVITATIONAL RADIATION AND THE VALIDITY OF GENERAL RELATIVITY

Nice article

Observing the speed, polarization, and back influence of gravitational waves would subject Einstein's theory to new tests.

Clifford M. Will

While the detection of gravitational radiation may usher in a new era of "gravitational wave" astronomy (see the accompanying article by Barry Barish and Rainer Weiss, on page *****), it should also yield new and interesting tests of Einstein's general theory of relativity, especially in the radiative and strong-field regimes. Consequently, we are in an unusual situation. After all, we rarely think of *electromagnetic* astronomy as providing tests of Maxwell's theory. Neutrino astronomy may be a closer cousin: We can observe neutrinos to learn about the solar interior or about supernovae, while also checking such fundamental phenomena as neutrino oscillations. To some extent, the usefulness of astronomical observations in testing fundamental theory depends upon how well tested the theory is already. At the same time, since general relativity is the basis for virtually all discussion of gravitational-wave detectors and sources,[1] the extent of its "upfront" validity is of some concern to us.

Although the empirical support for the theory of general relativity is very strong, it is still not as solid as the support for Maxwell's theory, and only in the last 35 years or so have precise tests been feasible. Furthermore, general relativity has not been tested deeply either in its radiative regime or in the regime of strong gravitational fields, such as those associated with black holes or neutron stars. (See figure 1.) Most tests, such as those carried out in the Solar System, check the theory only in its weak-field, slow-motion, nonradiative limit. One famous exception, the Hulse-Taylor binary pulsar, does provide an important verification of the lowest-order radiative predictions of general relativity and is sensitive to some strong-field aspects. Still, important tests of gravitational radiation and its properties remain undone. Furthermore, interesting, well-motivated alternative theories to general relativity still exist that are in agreement with all observations to date. Gravitational-wave tests will remain of interest to us to the extent that they can further constrain the theoretical possibilities.

n-dash

There are three aspects of gravitational radiation that can be subjected to testing:

▷ The polarization content of the waves (general relativity predicts only two polarization states, whereas other theories predict as many as six).

▷ The speed of the waves (general relativity predicts a speed the same as that of light, whereas other theories predict different speeds).

▷ The back influence of the emitted radiation on the evolution of the source.

In this article, we discuss the three possibilities. First, though, we review the current status of tests of general relativity.[2,3]

CLIFFORD WILL *(cmw@wuphys.wustl.edu) is chair of the physics department, and a member of the McDonnell Center for the Space Sciences, at Washington University in St. Louis, Missouri.*

The Einstein equivalence principle

At the heart of gravitational theory is a concept called the Einstein equivalence principle, which modernizes Newton's postulate of the equivalence of gravitational and inertial mass. It states first, that bodies fall with the same acceleration regardless of their internal structure or composition (this piece of the Einstein equivalence principle is called the weak equivalence principle), and second, that the outcome of any local nongravitational experiment is both independent of the velocity of the free-falling reference frame in which it is performed (local Lorentz invariance) and independent of where and when in the universe it is performed (local position invariance).

spacey

The Einstein principle implies that gravitation must be described by a theory in which matter responds only to the geometry of spacetime. Such theories are called metric theories. General relativity is a metric theory of gravity, but so are many others, including the "scalar–tensor" theory of Carl Brans and Robert Dicke, a theory based on earlier work by Paul Jordan. Strangely enough, string theory—a leading contender for a unified theory of particle interactions and for a quantum theory of gravity—does not strictly satisfy the metric theory definition. In string theory, matter can respond weakly to gravitation-like fields, in addition to responding to geometry. Consequently, testing the Einstein equivalence principle is a way to search for new physics beyond standard metric gravity.

To test the weak equivalence principle, we can compare the accelerations a_1 and a_2 of two bodies of different composition in an external gravitational field. The resulting measurements will yield the difference in acceleration divided by the average acceleration, $2|a_1 - a_2|/|a_1 + a_2|$, called the Eötvös ratio after Roland, Baron Eötvös of Vásárosnamény, whose pioneering tests of the weak equivalence principle at the turn of the century formed a foundation for general relativity.

The best test so far of the weak equivalence principle has been a series of experiments carried out at the

S 000009

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From: "Clifford M. Will" <cmw@howdy.wustl.edu>
To: ACP.AIP(JSCHMIDT)
Date: Tue, Aug 31, 1999 1:57 PM
Subject: My Article

Jeff:

The article looks great! Thanks. Below are my comments:

[convention: x.y.z means page x, column y, line z; -z means z from the bottom]

38.2.2: should read ``whereas other theories may predict different speeds.'' The ``may'' is important.

39.1.-9: ``clock anisotropy'' is incorrect in this context. How about ``The best test of this principle to date ...'', or ``The best test of local position invariance to date ...'', or simply ``The best test to date...''. Your choice.

39.2.9 and 39.2.13: Why no ``The'' in PPN formalism? Everybody says ``The PPN formalism''. It sounds strange without the ``the''.

40.1.1: should read ``ranging, planetary and satellite tracking tests'' -- delete the comma after planetary.

42.2.35: change to ``and the European instrument known as VIRGO''

42.2.19: To answer the question, the strong/weak issue in duality in string theory is a different one than here. I believe that the use of ``only'' in this context is a safe one.

42.2.References: I believe that the SLAC proceedings are to be published by SLAC itself as a report, not by a standard book publisher. If this means using the terminology ``unpublished'', fine.

My only serious problem is with the rendition of Figure 5. The inspiral waveform on the left of the merger does not show the required increase of frequency, which is crucial, and also appears asymmetrical about the horizontal axis. The correct curve (apart from overall scale) can be generated simply from the formula (which happens to be the correct, lowest-order formula):

f(t)=(-50-t)^(-1/4)*cos(2*(-50-t)^(5/8));

and then plotted from t=-500 to t=-51.

S 000045

A simple Maple program to do this, as well as to plot the Ringdown waveform is reproduced below:

```
f:=t->(-50-t)^(-1/4)*cos(2*(-50-t)^(5/8));
g:=t->0.6*exp(-(t-50)/40)*cos((t-50)/10);
with(plots):
p1:=plot({f(t)},t=-500..-51,linestyle=0,thickness=2,color=red):
p2:=plot({g(t)},t=50..200,linestyle=0,thickness=2,color=red):
```

plots[display]({p1,p2},axes=none);

An artist could then trace over the curves, if necessary. I'm sorry to do this, but every reader who knows about this subject will take one look at Fig. 5 and say ``Wrong!''. I've also attached a postscript file of the curves generated by these formulas.

Has a cover picture been selected for the issue? If it relates to LIGO, I might choose to order offprints with the magazine cover. If not, I would opt for the generic cover.

Thanks again!
Cliff

CC: "Clifford M. Will" <cmw@howdy.wustl.edu>

Received: from howdy.wustl.edu
([128.252.125.54])
by acpgate.acp.org; Tue, 31 Aug 1999 13:58:11 -0400
Received: (from cmw@localhost)
by howdy.wustl.edu (8.9.3/8.9.3) id MAA23670;
Tue, 31 Aug 1999 12:57:57 -0500 (CDT)
Date: Tue, 31 Aug 1999 12:57:56 -0500 (CDT)
From: "Clifford M. Will" <cmw@howdy.wustl.edu>
To: jschmidt@aip.acp.org
cc: "Clifford M. Will" <cmw@howdy.wustl.edu>
Subject: My Article
Message-ID: <Pine.SUN.3.91.990831121803.19174I-101000@howdy.wustl.edu>
MIME-Version: 1.0
Content-Type: MULTIPART/MIXED; BOUNDARY="1918925340-1140979462-936122276=:19174"

From: Jerry Bernholc <bernholc@ncsu.edu>
To: "Jeff Schmidt" <jschmidt@aip.acp.org>
Date: Sun, Sep 26, 1999 4:15 PM
Subject: Thanks for your help!

Dear Jeff,

Thank you very much for your help with the article and for your excellent editing job! I have already received quite a few nice comments. A number of people remarked that it was very well written.

I noted one misprint, or rather a mistake. "Alex Seattle" should have been "Alex Zettl." Most likely, a spelling checker changed "Zettl" to "Seattle." Would it be possible to run a correction? Please let me know, since I would also like to apologize to Alex. Thank you very much.

Regards,

Jerry

Received: from tick.physics.ncsu.edu
([152.1.119.76])
by acpgate.acp.org; Sun, 26 Sep 1999 16:20:00 -0400
Received: from bernhol1 (adsl-77-240-136.rdu.bellsouth.net [216.77.240.136]) by tick.physics.ncsu.edu (AIX4.3/UCB 8.7/8.7) with ESMTP id QAA24450 for <jschmidt@aip.acp.org>; Sun, 26 Sep 1999 16:14:30 -0400 (EDT)
Message-Id: <4.2.0.58.19990926161421.00b677e0@nemo.physics.ncsu.edu>
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X-Mailer: QUALCOMM Windows Eudora Pro Version 4.2.0.58
Date: Sun, 26 Sep 1999 16:15:25 -0400
To: "Jeff Schmidt" <jschmidt@aip.acp.org>
From: Jerry Bernholc <bernholc@ncsu.edu>
Subject: Thanks for your help!
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

From: Stephen Benka
To: Jeff Schmidt
Date: Mon, Sep 27, 1999 11:02 AM
Subject: Re: Compliment from Jerry Bernholc

It's a good feeling, isn't it? He sent me a nice note as well.

>>> Jeff Schmidt 09/27 3:43 AM >>>
Steve --

I got this nice note from Jerry Bernholc.

-- Jeff

>>> Jerry Bernholc <bernholc@ncsu.edu> 09/26/99 04:15pm >>>

Thank you very much for your help with the article and for your excellent editing job! I have already received quite a few nice comments. A number of people remarked that it was very well written.

From: "Jeff Schmidt" <jschmidt@aip.acp.org>
To: ACP.AIP(sbenka)
Date: Mon, Sep 27, 1999 3:43 AM
Subject: Compliment from Jerry Bernholc

Steve --

I got this nice note from Jerry Bernholc.

-- Jeff

>>> Jerry Bernholc <bernholc@ncsu.edu> 09/26/99 04:15pm >>>

Thank you very much for your help with the article and for your excellent editing job! I have already received quite a few nice comments. A number of people remarked that it was very well written.

CC: ACP.AIP(JSCHMIDT)

Received: from acpgate.acp.org
([149.28.226.101])
by acpgate.acp.org; Mon, 27 Sep 1999 03:46:41 -0400
Received: from ACP-Message_Server by acpgate.acp.org
with Novell_GroupWise; Mon, 27 Sep 1999 03:46:41 -0400
Message-Id: <s7eee8a1.080@acpgate.acp.org>
X-Mailer: Novell GroupWise 5.2
Date: Mon, 27 Sep 1999 03:43:30 -0400
From: "Jeff Schmidt" <jschmidt@aip.acp.org>
To: sbenka@aip.org
Cc: JSCHMIDT@aip.acp.org
Subject: Compliment from Jerry Bernholc
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Disposition: inline

Jeff, this article is very good— you've brought it a long way. —Steve

2ND pages 16 Nov. 99 SB 11/17/99

MOTILE BEHAVIOR OF BACTERIA

E. coli, a self-replicating object only a thousandth of a millimeter in size, can swim 35 diameters a second, taste simple chemicals in its environment, and decide whether life is getting better or worse.

Howard C. Berg

Escherichia coli is a single-celled organism that lives in your gut. It is equipped with a set of rotary motors, each of which is only 45 nm in diameter and drives a long, thin, helical filament that extends several cell body lengths out into the external medium. The assemblage of motor and filament is called a flagellum. The concerted motion of several flagella enables a cell to swim. A cell can move toward regions that it deems more favorable by modulating the direction of rotation of its flagella. It does this modulation by measuring changes in the concentrations of certain chemicals in its environment (mostly nutrients) and deciding whether life is getting better or worse. Thus, in addition to rotary engines and propellers, *E. coli*'s standard accessories include particle counters, rate meters, and gear boxes. This microorganism is a nanotechnologist's dream. Let us examine the features that make it so, from the perspectives of several scientific disciplines: anatomy, biology (genetics), chemistry, and physics.

What made the discovery of *E. coli* and its properties possible? The tale has two geneses. One involves light microscopy and begins in the 17th century, when Antoni van Leeuwenhoek first observed swimming bacteria.[1] (See box 1.) The other involves molecular genetics and begins in the 20th century, when Joshua Lederberg demonstrated that bacteria have sex, as evidenced by their genetic recombination.[2] (See box 2.) Lederberg studied *E. coli* and *Salmonella typhimurium*, two closely related organisms. They are the principal subjects of work now being done on bacterial chemotaxis (the motion of bacteria toward chemical attractants or away from chemical repellents). That work has yielded an important model for understanding organisms' behavior at the molecular level.

Anatomy of *E. coli*

E. coli (like *S. typhimurium*) is a cylindrical organism with hemispherical endcaps (as figure 1 shows). The cell, which weighs only 1 picogram, is about 70% water. Some strains are flagellated and motile; others are nonflagellated and nonmotile. When motile cells are grown in a rich medium (such as salts plus a mixture of amino acids), they swim in the direction of their long axis at a rate of about 35 diameters per second, often changing course but rarely stopping.

The chromosome of *E. coli* consists of a single double-stranded chain of DNA about 700 times longer than the body of the cell. There are 4 639 221 base pairs specifying 4288 genes, most of which encode proteins.[3] The functions of only about 60% of these genes are known. About 50 different kinds of proteins are required to produce the cell's chemotaxis, roughly half for the assembly of flagella and half for behavioral control.

When *E. coli* grows, it first gets longer and then divides in the middle. In a sense it is immortal, because the mother cell is replaced by two daughters, essentially identical to the daughters of the previous generation. The molecules of DNA in the members of a given set of descendants are identical except for mutations, which occur spontaneously for a given gene, at the rate of about 10^{-7} per generation.

If well fed and held at the temperature of the human gut (37 °C), *E. coli* can synthesize and replicate everything it needs to make a new copy of itself in about 20 minutes. Thus, if we start at noon today with one cell (and lots of food), by noon tomorrow there will be $2^{72} = 4.7\times10^{21}$ cells—enough to pack a cube 17 meters on a side! This replication rate explains why single cells dispersed on the surface of the hard form of nutrient agar soon become mounds of cells (colonies) a millimeter or so in diameter and why, in soft agar, the motile progeny of a single cell soon populate the entire plate.

Genetic analysis

A fully functional cell line, or strain, found in the wild is called a wild type. If a mutant cell is found that is missing a particular function, the gene carrying the mutation is named for that missing function. For example, a *che* gene is one encoding a protein (polypeptide) required for *che*motaxis. A cell with such a defect develops flagella and swims, but it does not respond normally to chemical stimuli. The first gene of this type to be identified is called *cheA* (in italics), the second is called *cheB*, and so on through the alphabet. When the protein encoded by the gene is identified, it is called CheA (capitalized and in roman type).

In bacterial chemotaxis, besides the *che* genes, we encounter *fla* genes, so named for their defects in the synthesis of *fla*gella (these genes are now called *flg*, *flh*, *fli*, or *flj*, because there turned out to be more than 26). There are also *mot* genes, named for defects in motility, or generation of torque. And there are a variety of genes that specify specific chemoreceptors; one, for example, *tar*, is a gene encoding the chemoreceptor Tar, which is so named because it mediates taxis toward the amino acid aspartate and away from certain repellents. The soft-agar plate shown in box 2 was inoculated with wild-type cells at the top, cells of a *tsr* (the *s* stands for serine) strain at the right, cells of a *tar* strain at the bottom, and cells of a smooth-swimming *che* strain at the left.

HOWARD BERG *is a professor of molecular and cellular biology, and of physics, at Harvard University in Cambridge, Massachusetts, and a member of the Rowland Institute for Science.*

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This can open on either a right or left-hand page.

Another excellent article! —Steve 11/23/99

First pages 23 Nov. 99

PHYSICS AND THE INFORMATION REVOLUTION

Quantum physics holds the key to the further advance of computing in the postsilicon era.

Joel Birnbaum and R. Stanley Williams

In the fourth century BC, a young man named Pythias was condemned to death by Dionysius, the tyrant of Syracuse, for plotting against him, but Pythias was granted three days' leave to go home to settle his family's affairs after his friend Damon agreed to take his place and be executed should Pythias not return. Pythias encountered many problems but managed to return just in time to save Damon. Dionysius was so struck by this remarkable and honorable friendship that he released them both.

The decades-old friendship between computer technology and physics has also been a remarkable and honorable one, and it, too, has produced salutary results. Present-day experimental and theoretical physicists depend on computing, and have incurred a debt that they have repaid many times over by making fundamental contributions to advances in hardware, software, and systems technologies. (Figure 1 shows an experimental computer and one of its developers.)

In this article, we discuss the physical and economic limits to the geometrical scaling of semiconductor devices that has been the basis of much of the computer industry's progress over the last 50 years. We then look at some of the options that may be available when we come up against fundamental physics barriers sometime after 2010.

Disruptive technology

The first stored-program electronic computer, ENIAC (the Electronic Numerical Integrator and Computer), was built in 1946. A major triumph for vacuum-tube technology, ENIAC could add 5000 numbers in one second. At that rate, it could calculate the trajectory of an artillery shell in only 30 seconds, whereas an expert human with a mechanical calculator would have needed some 40 hours to complete the task. The machine was large (see figure 2)—and expensive. ENIAC . . .

- ▷ Contained 17 468 vacuum tubes
- ▷ Weighed 60 000 pounds
- ▷ Occupied 16 200 cubic feet
- ▷ Consumed 174 kilowatts (233 horsepower)

The amount of energy ENIAC expended to compute a single shell trajectory was comparable to that of the explosive discharge required to actually fire the shell. ENIAC was still the fastest computer on Earth nine years later, when it was turned off because the US Army could no longer justify the expense of operating and maintaining it.

JOEL BIRNBAUM *is chief scientist at Hewlett-Packard, in Palo Alto, California.* STANLEY WILLIAMS *is *****"a" or "the"***** senior principal laboratory scientist at Hewlett-Packard Laboratories.*

Even in the early days of ENIAC, though, technologists dreamed of smaller, faster, and far-more-reliable computers. An article by a panel of experts in the March 1949 issue of *Popular Mechanics* confidently predicted that someday a computer as powerful as ENIAC would contain only 1500 vacuum tubes, weigh only 3000 pounds, and require a mere 10 kilowatts of power to operate. Such a machine would be about the size and weight of an automobile, said the experts, with power consumption to match. What was intended to be a bold projection seems quaintly conservative to us now. These days, a palmtop computer is thousands of times more powerful than the ENIAC was.

The reason for the experts' now-laughable error is that their prediction was based on the wrong foundation—reasonable extrapolation of the in-place vacuum-tube technology. The transistor, which had already been invented and represented a disruptive technology—that is, a technology that could totally displace vacuum tubes in computers, as electronic calculators later replaced slide rules—was completely ignored.

By 1949, after 40 years of development, vacuum-tube technology was mature, and the associated manufacturing infrastructure was enormous. In 1938 the vacuum tube had still been a decade away from its ultimate accomplishment. But already there was a significant search for something that would be better: a solid-state switch. The development of that switch required a great deal of basic research, both in materials purification and in device concepts.

Even though transistors as discrete devices had significant advantages over vacuum tubes and progress on transistors was steady during the 1950s, the directors of many large electronics companies believed that the vacuum tube held an unassailable competitive position.

Their companies were eventually eclipsed by the ones that invested heavily in transistor technology R&D and that were poised to exploit new advances. As we shall see, there are eerie parallels with the situation today.

Moore's law

Gordon Moore of Intel Corp was the first to quantify the steady improvement in gate density when he noticed that the number of transistors that could be built on a chip increased exponentially with time. (See figure 3.) Over the past 24 years, that exponential growth rate has corresponded to a factor-of-four increase in the number of bits that can be stored on a memory chip in every device generation of about 3.4 years—an increase of 16 000 times!

This exponential growth in chip functionality is closely tied to the exponential growth of the chip market,

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I'd like at least one recent research reference. See p. 5 for a possibility.

This reads very well.

First pages 21 JAN. 00

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ATMOSPHERIC INFRASOUND

The search for ways to monitor compliance with the Comprehensive Test Ban Treaty has sparked renewed interest in sounds with frequencies too low for humans to hear.

Alfred J. Bedard Jr and Thomas M. Georges

Imagine a world in which you could hear not just nearby conversations and the noise of traffic a few blocks away, but also the sound of blasting in a quarry in the next state, the rumblings of an avalanche or volcano a thousand miles away, and the roar of a typhoon halfway around the world. Fortunately, nature has spared our senses from direct exposure to this incessant din. But our relentless quest to extend our senses has yielded instruments that can do just that—and more. Waves of infrasound, sounds at frequencies too low for us to hear, permeate the atmosphere and offer us insights into natural and human-made events on a global scale.

The term infrasound was coined by following the convention adopted nearly two centuries ago for light waves. The invisible, longer waves below the red end of the visible spectrum were called infrared, and shorter waves beyond the violet end were called ultraviolet. ("Infra" and "ultra" are from the Latin, meaning "below" and "beyond," respectively.) The nominal range of human hearing extends from about 20 Hz to 20 000 Hz, so the inaudible sound waves with frequencies below 20 Hz were dubbed infrasound, while those above the upper limit of 20 000 Hz were named ultrasound. (Many animals can hear beyond the human limits, as described in the box on page *****.) Following the optical convention even further, frequencies just below 20 Hz are known as near-infrasound, and frequencies below about 1 Hz are often called far-infrasound. Near-infrasound, if sufficiently intense, is often felt rather than heard—as you might have experienced when you pass cars equipped with "mega-bass" audio systems.

Interest in atmospheric infrasound peaked during the Cold War as one of several ways to detect, locate, and classify nuclear explosions from global distances. Now, the Comprehensive Test Ban Treaty calls for a more sophisticated global sensor network to monitor compliance.[1] There is a need to ensure that tests of clandestine, low-yield nuclear devices can be detected under conditions of noise, cloud cover, or other masking situations underground, underwater, or in the atmosphere. An integrated global sensor array now being deployed would address this problem by coordinating observations from multiple ground-based sensor types, including seismic, hydroacoustic, and infrasonic arrays, working in concert. (See Jeremiah Sullivan's article on the Comprehensive Test Ban Treaty, PHYSICS TODAY, March 1998, page 24.)

In anticipation of a CTBT monitoring system, infrasound research has returned full circle to its origins. In this article, we review the science and technology of atmospheric infrasound, beginning with a brief history of its Cold War beginnings. Our focus, however, is on the richness of Earth's infrasonic environment, unheard and unknown until instruments were built to detect and record it. Practical applications of this new science are just now being contemplated. (See figure 1, for example.)

A little history

Pressure waves from very powerful explosions may be detected after traveling several times around the Earth. Two famous pre-nuclear instances were the explosion of the Krakatoa volcano in 1883 and the Great Siberian Meteorite of 1909. Following each of these events, sensitive barometers around the world recorded impulsive pressure fluctuations as traces on paper charts. Later, meteorologists collected these charts from stations around the world and, by comparing arrival times, were able to reconstruct the progress of pressure waves radiating outward from the source at the speed of sound, sometimes passing an observing station two or three times.

But these disturbances pale when compared with the political shock waves from the explosion of the first Soviet atomic bomb in 1949. Cold War fears stimulated a flurry of "remote-sensing" research—much of it classified—to detect and locate nuclear explosions at global distances. Among the technologies explored during those early years of the Cold War were seismic arrays, electromagnetic (radio to gamma-ray) sensors, and arrays of microphones to listen to very-low-frequency sound waves in the atmosphere.

In the early 1950s, a number of institutions contributed to the successful deployment of a global infrasonic monitoring network. Lewis Strauss, in his book, *Men and Decisions*, describes recording low-frequency air waves at the National Bureau of Standards in Washington, D.C., following a 1954 nuclear test in the Pacific. He took the recording to President Eisenhower and played a sped-up version that made the recording audible. Strauss emphasizes the strategic importance, during those early Cold War years, of nuclear intelligence provided by a worldwide monitoring system that included both remote sensing and a radionuclide sampling program.[2]

Early defense-driven infrasound research had multiple foci, including mathematical models for the intensity and spectrum of sound waves generated by various kinds of explosions, how these waves propagate long distances through the atmosphere, what kinds of sensors would be best suited for detecting their signatures, and how those signatures could be extracted from a bewildering variety of natural and human-made infrasonic noise. The Limited Test Ban Treaty of 1963, which prohibits testing of

ALFRED BEDARD *is a research scientist at the National Oceanic and Atmospheric Administration's Environmental Technology Laboratory, in Boulder, Colorado.* THOMAS GEORGES *is a research scientist at the NOAA/Colorado State University Cooperative Institute for Research in the Atmosphere, also in Boulder.*

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AMERICAN INSTITUTE OF PHYSICS

A I P INTER-OFFICE MEMORANDUM

To: Jeffery Schmidt/Physics Today

From: T. C. Braun TCB Extension: 2293

Date: 11 February 2000

Subject: Perfect Attendance

CONGRATULATIONS!!!!! Our records indicate that you had perfect attendance for the year 1999. In accordance with our present policy, you have earned a cash incentive bonus of $200 (subject to normal payroll taxes) and two bonus days. The bonus days must be taken within the year 2000 and may not be carried over into 2001. You will receive a separate check on payday, 24 February 2000. We thank you for your perfect attendance and wish you another healthy year in 2000.

From: "Johnson, Anthony" <johnsona@ADM.NJIT.EDU>
To: "'jschmidt@aip.org '" <jschmidt@aip.org>
Date: Sat, Apr 8, 2000 5:23 PM
Subject: Physics Today article

Dear Jeff:

I now have the galleys and I am quite impressed with how quickly you put together the two pieces. I am also quite happy with the editing of my submission. I only have one question and suggested minor change. The first paragraph of the article: The number of jobs posted that I received from Ed Goldin, shortly after the OFC conference was 2000. Is it safe to assume that the 3400 number that you are using is the updated number and not a typo? If all is well then this is an even more dramatic sign of opportunity in the field and warrants more accentuation. I suggest italics and an exclamation point for the following: " ... 11 jobs per seeker!"

You've done a wonderful job and I have no further changes or comments. I will be visiting the School of Optics at the University of Central Florida on Monday and Tuesday and if you should need to get hold of me for some reason, my hosts are Professors Eric Van Stryland and George Stegeman. The Administrative Assistant at the School of Optics is Sarah Pimentel (Tel: 407-823-6916).

Best Regards,

Anthony

CC: "'sbenka@aip.org '" <sbenka@aip.org>, "Crawley, Re...

****
Dr. Anthony M. Johnson, Chairperson & Distinguished Professor
Department of Physics
New Jersey Institute of Technology
Room 468 Tiernan Hall
161 Warren Street
Newark, NJ 07102-1982
Tel: 973-596-3531; Ultrafast Phenomena Lab: 973-642-7144
FAX: 973-596-5794(Dept.); 973-642-4874(Private, Optics Letters)
Asst. to Chair: Mrs. Renee Crawley -- 973-596-3567 <crawley@ADM.njit.edu>
Email: johnsonA@ADM.njit.edu
Homepage: http://physics.njit.edu/~johnson/
Minorities in Science Homepage: http://www.csv.com/DrAnthonyJohnson.htm
Editor-in-Chief, OPTICS LETTERS (11/95-12/01)
2000 **Vice President** of the OPTICAL SOCIETY OF AMERICA (OSA)
****

Received: from pinet.aip.org
([192.58.150.10])
by aip.org; Sat, 08 Apr 2000 17:23:55 -0400
Received: from adm.njit.edu (adm.njit.edu [128.235.184.76])
by pinet.aip.org (8.9.1a/8.9.1) with ESMTP id RAA24639;
Sat, 8 Apr 2000 17:24:18 -0400 (EDT)
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id <H8VJ8XY6>; Sat, 8 Apr 2000 17:23:43 -0400
Message-ID: <E7DB63F7BA58D21195DD0000D110ADE001779A45@adm.njit.edu>
From: "Johnson, Anthony" <johnsona@ADM.NJIT.EDU>
To: "'jschmidt@aip.org '" <jschmidt@aip.org>
Cc: "'sbenka@aip.org '" <sbenka@aip.org>,
"Crawley, Renee"
<Crawley@ADM.NJIT.EDU>,
"Johnson, Anthony" <johnsona@ADM.NJIT.EDU>
Subject: Physics Today article
Date: Sat, 8 Apr 2000 17:23:42 -0400
MIME-Version: 1.0
X-Mailer: Internet Mail Service (5.5.2650.21)
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boundary="----_=_NextPart_000_01BFA1A0.B6EEE6D4"

From: "Johnson, Anthony" <johnsona@ADM.NJIT.EDU>
To: "'Jeff Schmidt '" <jschmidt@aip.org>
Date: Sun, Apr 9, 2000 3:03 PM
Subject: RE: Physics Today article -Reply

Dear Jeff:

Yes, of course leave the sentence as it stands -- I nearly forgot about the conservative nature of Physics Today. I really had my doubts about getting this done in time for the May issue, but you pulled it off!

Best regards

Anthony

-----Original Message-----
From: Jeff Schmidt
To: johnsona@ADM.NJIT.EDU
Cc: jschmidt@aip.org
Sent: 4/9/00 5:38 AM
Subject: Physics Today article -Reply

Dear Anthony:

Thanks for the quick turn-around on the page proofs. We will probably send the article to the printer while you are in Florida.

Yes, 3400 is the updated number. The Physics Today style is rather low-key, and so we try to avoid using italics for emphasis unless it is necessary for clarity. And we try not to use exclamation points for emphasis; we reserve them for actual exclamations, such as "Hmmm!" The paragraph containing the sentence in question already has an exclamation point (in the first line). I think the dash adds just the right amount of emphasis. The significance of "11 jobs per seeker" isn't going to be lost on any of our readers. So I would like to let the sentence stand as it is. Would that be ok?

Thank you again for an interesting and lively article.

Jeff

S 000034

CC: "'sbenka@aip.org '" <sbenka@aip.org>, "Crawley, Re...

Received: from pinet.aip.org
([192.58.150.10])
by aip.org; Sun, 09 Apr 2000 15:04:15 -0400
Received: from adm.njit.edu (adm.njit.edu [128.235.184.76])
by pinet.aip.org (8.9.1a/8.9.1) with ESMTP id PAA29080;
Sun, 9 Apr 2000 15:04:39 -0400 (EDT)
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Message-ID: <E7DB63F7BA58D21195DD0000D110ADE001779A47@adm.njit.edu>
From: "Johnson, Anthony" <johnsona@ADM.NJIT.EDU>
To: "'Jeff Schmidt '" <jschmidt@aip.org>
Cc: "'sbenka@aip.org '" <sbenka@aip.org>,
"Crawley, Renee"
<Crawley@ADM.NJIT.EDU>,
"Johnson, Anthony" <johnsona@ADM.NJIT.EDU>
Subject: RE: Physics Today article -Reply
Date: Sun, 9 Apr 2000 15:03:55 -0400
MIME-Version: 1.0
X-Mailer: Internet Mail Service (5.5.2650.21)
Content-Type: text/plain;
charset="iso-8859-1"

UNIVERSITY OF
MARYLAND
OFFICE OF THE PRESIDENT

2101 Main Administration Building
College Park, Maryland 20742
301.405.4945 TEL 301.314.9395 FAX

July 17, 2001

Jeff Smith
[redacted]
Washington, D.C. 20008

Dear Mr. Smith:

We are in receipt of your letter of July 1, 2001, to Dr. Ann G. Wylie, Assistant President. Because you invoke the Maryland Public Information Act (the "MPIA"), it has been forwarded to this Office for consideration and reply.

You have asked for "the agreement that the university negotiated with the American Center for Physics." We are unable to locate a fully executed copy of the *Relationship and Cooperation between American Center for Physics and University of Maryland, College Park* as the document is known. However, we have been able to retrieve a final draft dated November 17, 1993. It is my understanding that there were no substantive changes made to it. A copy is enclosed.

You have also requested a "complete list of university affiliates." As you may appreciate, the MPIA does not require the University to generate new material. And to the best of our knowledge, a list of "affiliates" has never been attempted. In large measure this reflects the imprecise and varied way the word "Affiliate" or "affiliated" has come to be used in faculty parlance. We remain prepared, however, to offer you copies of other agreements if you might describe them with sufficient particularity to enable us to more readily identify them.

We trust this responds fairly to your inquiry.

Sincerely,

Jack T. Roach
Executive Assistant to the
President & Chief Counsel

cc: Dr. Ann G. Wylie

S 001023

file

Draft proposal, ver 0.4
AH, Nov. 17, 1993

RELATIONSHIP AND COOPERATION
between
AMERICAN CENTER FOR PHYSICS and UNIVERSITY OF MARYLAND, COLLEGE PARK

0. Premise

The proximity of the newly opened American Center for Physics and the University of Maryland at College Park offers an opportunity for sharing resources and expertise in a way that benefits both institutions and the science community. The prospect of synergy between the Physics Department and individual physics organizations that comprise ACP was, after all, an important factor in the decision to locate ACP in Maryland.

This document attempts to define a framework for collaboration between ACP and UMCP. It is based on prior discussion between the two groups and the agreements reached verbally to date.

1. Representation of ACP and UMCP

The ACP Board is comprised of two representatives of each of the Member Organizations: Marc Brodsky and Arthur Bent for AIP, Harry Lustig and Irving Lerch for APS, and Bernard Khoury and Robert Sears for AAPT. Sal Trofi (previously also Christopher Marshall) from AAPM, an Affiliate Member of ACP, attends the Board meetings as a non-voting participant. A subgroup of the ACP Board, composed of one person from each member organization, will continue to represent ACP in contacts with UMCP.

In recent formal and informal discussions, ACP was represented by Kenneth Ford, former Executive Director of AIP, Harry Lustig, and Bernard Khoury. The following people from the University of Maryland have participated at various times: Richard Herman, Dean of the College of Computer, Mathematical, and Physical Sciences; Bruce Fretz, Associate Vice President of Academic Affairs; Brian Darmody, Assistant to the President at UMCP. The Physics Department has been represented in these talks by: Chuan Liu, acting Chair, Angelo Bardasis, Associate Chair, John Layman, and Pam Harris of educational/outreach programs.

2. Summary of early discussions

The ACP Board and its individual members have met on a number of occasions with the UM administration officials and representatives of the physics department. It was agreed in principle that:

(a) Staff of ACP will receive identification cards, allowing access to College Park campus facilities such as are used by the full time staff at UMCP, including access to libraries (with some restrictions on borrowing books) and the campus shuttle system.

(b) Some physicists on the staff at AIP, APS, AAPT, and AAPM may be offered adjunct or visiting faculty status at the Physics Department. The number of these appointments will be limited and they will be handled on a case by case basis. ACP suggested for consideration thus far the following people: Marc Brodsky, Jack Hehn, Bernard Khoury, Irving Lerch, Harry Lustig, John Rigden, and Spencer Weart.

A more detailed summary of prior discussions is given in the June 29 draft prepared by Bernard Khoury.

3. ACP services to UMCP

The following are preliminary suggestions of the services that ACP may offer to the UMCP faculty.

(a) Niels Bohr Library. Access to the stacks and access to the archives for scholarly purposes. Copying services, free loan of copies of interviews on tapes and microfilms. Employment opportunities for students and graduate students.

(b) Student Internships and faculty fellowships. Possibility of internship in archival and library science, in history of science, in science writing and editing, in science policy and management (including Physics Management Fellow position at AIP). Also fellowships for faculty in these areas. ACP may also be able to offer postdoctoral positions.

(c) ACP publications and information. Distribution to interested faculty members of any of the following: FYI (e-mail), Physics News Update (e-mail), History of Physics Newsletter, brochures from the Education and Employment Statistics. Also access to information and advice on employment opportunities for physicists.

(d) PINET. Limited number of free access accounts to the PINET database and services. Unlimited paid access.

(e) Conference facility. Limited use of ACP conference rooms and facilities.

4. UMCP services to ACP

The following are preliminary suggestions of the services that the University and the Physics Department may offer to ACP staff.

(a) Temporary staff id cards. For interested professional full-time staff at ACP. The id cards will allow access to university and departmental libraries (limited borrowing privileges and access to stacks, at least for some ACP staff), shuttle system, and other services available to UMCP staff.

(b) Adjunct/visiting faculty positions. The Physics Department may offer a limited number of appointments to physicists in ACP, some of them on a rotating basis in connection with teaching assignments. ACP will forward a list of people interested in these positions.

(c) University publications. University newspaper(s) and departmental newsletters, announcements of colloquia talks, etc., distributed in hard copy and/or via e-mail in limited number to ACP. Several copies of the university catalogue and listings of courses offered sent to Niels Bohr Library each semester.

Send copy

(d) UMCP computing facilities. Access to computing services and on-line data-base to selected ACP scientists for research.

(e) University and departmental lectures and colloquia. Open to all interested staff members at ACP.

(f) ACP bus stop. Extension of the university shuttle system so that there is a regular ACP bus stop. This will facilitate contacts between the two communities.

5. Future

The details of the proposed procedures will be worked out and modified as needed. ACP and UMCP will seek to maximize the benefits to both sides through collaboration, joint projects, and good neighborly interaction.

McCarthy Consulting

P.O. Box 878 • Edgewater, Maryland 21037 • (301) 261-4117 • Fax: (410) 798-1577 • E-mail: McCarConsu@aol.com

Report as of April 11, 2005
Analysis of Lost Pay and Benefits for Jeffrey Schmidt

This report computes the value of earnings and benefits lost by Jeffrey Schmidt as a result of the loss of his employment at the American Institute of Physics in May 2000. I was retained by the firm of Howrey Simon Arnold & White, LLP, at a rate of $150 per hour to compute Dr. Schmidt's loss. In preparation of this report, I reviewed materials reflecting the salary and benefits received by Dr. Schmidt at the American Institute of Physics, including his pay stubs and W-2 forms.

I reviewed interest rate data from the United States Treasury Department to determine the appropriate discount rate to reduce Dr. Schmidt's future losses to present value and the appropriate interest rate by which to increase his back earnings. Because interest rates are subject to change, it may be necessary to modify this report and some of its tables prior to trial testimony.

I also reviewed consumer price data published by the U.S. Bureau of Labor Statistics to calculate the cost of his medical insurance and information from the employer as of 1999 and 2000. Should additional or more recent information become available, it may be necessary to update this report.

Beginning with Table 1, I show Dr. Schmidt's salary history for the years 1995 through 2000 at the American Institute of Physics. In 2000, his final year of employment, Dr. Schmidt's annual salary would have been $45,275. This salary is lower than prior years because Dr. Schmidt was employed to work two-thirds rather than full time, beginning in September 1999.

In addition to salary, the American Institute of Physics provided various benefits that contributed to Dr. Schmidt's total compensation. First is the employer's share of the FICA and Medicare taxes, 7.65% of earnings. In addition, the Institute paid for various benefits on Dr. Schmidt's behalf through its benefits programs. These included medical insurance and an annual 10% contribution to a 403(b) plan. These items are shown in Columns 4 and 5 of Table 1.

In Table 2, I show the estimate of Dr. Schmidt's compensation for 2001 onward based on his final compensation package as shown on Table 1. I assume Dr. Schmidt would have received a salary increase of five percent per year, based on his past performance ratings and the Institute's 1999 Salary Increase Guidelines. I further assume that his medical insurance benefit would have increased through 2005 at the same rate as medical costs in the Washington DC area as measured by the U.S. Bureau of Labor Statistics (the Consumer Price Index for all Urban Consumers for Medical Care as of January each year). In 2006 and thereafter, I increase the medical insurance benefit by 3% per year. Finally, I assume that his salary-related benefits would remain proportionate to his increasing salary.

The sum of the salary plus benefits for the years to the present date, as shown in Table 2, equals the total back compensation, $348,818. Future compensation totals $528,395 from April 12, 2005 through the end of April 2011, the month Dr. Schmidt would have attained the age of 65 and expected to retire.

Table 3 computes the value of Dr. Schmidt's mitigating compensation, that is the alternative income Dr. Schmidt has earned or is expected to earn over the same time period, including salary, FICA, Medicare and benefits. In 2000, through his termination in May, the year of Dr. Schmidt's termination, he earned total compensation of $23,526 from the American Institute of Physics. In 2002, he earned a total of $250. Otherwise, he has earned no income. Based on his past experience, Dr. Schmidt expects he will earn no further income through his anticipated retirement date in 2011.

The final computation is shown in Table 4. The mitigating compensation in 2000 and 2002 is subtracted from lost compensation each year. Column 4 shows the annual loss in nominal dollars. In column 5, I add interest based on current Treasury bill rates for losses incurred in 2000 through April 11, 2005. Net back compensation for 2000 through April 11, 2005, with interest totals $354,093.

In the section titled Front Compensation, Column 2, shows a total of $528,395 lost and Column 3 shows no expectation of mitigating compensation. In Column 5, I discount the future annual compensation to present value using the one-year, two-year, three-year and 5-year US Treasury constant maturities rate as of April 1, 2005, 3.34%, 3.75%, 3.9%, and 4.13%, respectively. Each year's discounted net loss is shown, based on the appropriate interest rate. The total future loss before discounting equals $528,395. Discounted, the value is $471,845. This figure, added to the back pay, totals $825,938, representing Dr. Schmidt's total net loss.

Amy McCarthy, Ph.D.
McCarthy Consulting
April 11, 2005

Table 1. Calculation of Past Compensation Trend: Jeffrey Schmidt

	[1] Year	[2] Annual Salary	[3] Employer FICA & Medicare	[4] Employer Insurance Premiums	[5] Employer Retirement Benefits	[6] Total
	1995	$58,890	$4,505	NA	$5,889	$69,284
	1996	61,724	4,722	NA	6,172	72,618
	1997	66,777	5,108	5,502	6,678	84,066
	1998	65,583	5,017	6,043	6,558	83,201
	1999	27,624	2,113	6,456	2,762	38,955
Expected Annual Compensation	2000	45,275	3,464	6,456	4,528	59,722

[2] Plaintiff took unpaid leave between December 1998 and June 1999 and in September 1999 began working 2/3 time. These factors account for his lower wages in those years. His expected salary for 2000 is his annualized bi-weekly pay at 2/3 of full time.

[3] Equal to 7.65% of salary to Social Security maximum and 1.45% thereafter.

[4] Employer paid 80% of total premium.

[5] Employer contributed 10% of salary to 403(B) plan on plaintiff's behalf.

Source: Plaintiff's records.

03/25/2005 08:50 4107981577 MCCARTHY CONSULTING PAGE 05

Table 2. Calculation of Back and Front Compensation: Jeffrey Schmidt
2000 to 2011

[1] Year	[2] Annual Salary	[3] Employer FICA & Medicare	[4] Employer Insurance Premiums	[5] Employer Retirement Benefits	[6] Total
2000	$45,275	$3,464	$6,456	$4,528	$59,722
2001	47,539	3,637	6,587	4,754	62,517
2002	49,916	3,819	6,670	4,992	65,396
2003	52,412	4,009	6,932	5,241	68,594
2004	55,032	4,210	7,182	5,503	71,927
1/1/05 through 4/11/05	15,831	1,211	2,036	1,583	20,661
Total Back	**$266,005**	**$20,349**	**$35,863**	**$26,600**	**$348,818**
4/12/05 through 12/31/05	41,953	3,209	5,395	4,195	54,753
2006	60,673	4,641	7,654	6,067	79,036
2007	63,707	4,874	7,884	6,371	82,835
2008	66,892	5,117	8,120	6,689	86,819
2009	70,237	5,373	8,364	7,024	90,997
2010	73,748	5,642	8,615	7,375	95,380
Through April 2011	25,246	1,931	8,873	2,525	38,576
Total Front	**$402,455**	**$30,788**	**$54,906**	**$40,246**	**$528,395**

Table 2 Notes

[2] Salary is assumed to increase at 5% per year, based on the plaintiff's performance ratings and the Institute's 1999 Salary Increase Guidelines.
[3] Equal to 7.65% of salary to Social Security maximum and 1.45% thereafter.
[4] Assumes insurance premiums increase at the rate of inflation for medical expenses through 2005 and at 3% per year thereafter.
[5] Assumes retirement benefits continue at 10% of salary.

Source: Plaintiff's records.

03/25/2005 06:50 4107981577 MCCARTHY CONSULTING PAGE 06

Table 3. Calculation of Mitigating Compensation: Jeffrey Schmidt
2000 to 2011

[1] Year	[2] Annual Salary	[3] Employer FICA & Medicare	[4] Employer Insurance Premiums	[5] Employer Retirement Benefits	[6] Total
2000	$19,355	$1,481	$2,690	$1,936	$23,526
2001	0	0	0	0	0
2002	250	0	0	0	250
2003	0	0	0	0	0
2004	0	0	0	0	0
1/1/05 through 4/11/05	0	0	0	0	0
Total Back	**$19,605**	**$1,481**	**$2,690**	**$1,936**	**$23,776**
4/12/05 through 12/31/05	0	0	0	0	0
2006	0	0	0	0	0
2007	0	0	0	0	0
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0	0	0	0	0
Through April 2011	0	0	0	0	0
Total Front	**$19,605**	**$1,481**	**$2,690**	**$1,936**	**$23,776**

Table 3 Notes

[2] Regular and bonus pay for 2000 through termination date of May 31, 2000. Excludes reimbursement fc unused vacation leave. Pay for college lecture in 2002.

Source:Plaintiff's records.

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Table 4. Summary of Back and Front Compensation, Net of Mitigating Compensation: Jeffrey Schmidt, 2000 to 2011

		[1] Year	[2] Total Lost Compensation	[3] Total Mitigating Compensation	[4] Net Loss (Gain)	[5] Annual Net Loss Plus Interest/ Discounted	[6] Cumulative Net Loss Plus Interest/ Discounted
Back Compensation		2000	$59,722	$23,526	$36,197	$42,659	$42,659
		2001	62,517	0	62,517	71,297	113,956
		2002	65,396	250	65,146	71,894	185,850
		2003	68,594	0	68,594	73,253	259,103
		2004	71,927	0	71,927	74,329	333,432
		1/1/05 through 4/11/05	20,661	0	20,661	20,661	354,093
Total Back Pay Compensation			**$348,818**	**$23,776**	**$325,042**	**$354,093**	
Front Compensation		4/12/05 through 12/31/05	54,753	0	54,753	54,753	408,846
		2006	79,036	0	79,036	76,482	485,328
		2007	82,835	0	82,835	76,955	562,282
		2008	86,819	0	86,819	77,405	639,687
		2009	90,997	0	90,997	78,085	717,772
		2010	95,380	0	95,380	77,907	795,679
		Through April 2011	38,576	0	38,576	30,259	825,938
Total Front Compensation			**$528,395**	**$0**	**$528,395**	**$471,845**	
Total Back plus Interest and Discounted Front Compensation						**$825,938**	

[6] Future annual loss discounted to present value at 1- to 5-year Treasury constant maturities rates as of April 1, 2005. Interest added to past annual loss at 1-year Treasury constant maturities rate as of April 1, 2005.

Sources: Tables 1, 2, and 3.